Yemen Sustainable Fishery Development in Red Sea and Gulf of Aden (SFISH) (P178143)

Environmental and Social Management Plan (ESMP) No.06

For the

Construction and Development of AL-SAQR Fish Landing Center

One Sub-project

3 March 2025

Contents

List of figures---

List of tables----

Abbreviations

BOQs	Bills of Quantities
CC	Community Committee
CoC	Code of Conduct
DIP	Detailed Implementation Plans
EBRD	European Bank for Reconstruction and Development
EPA	Environmental Protection Authority
E&S	Environmental and Social
ESF	Environmental and Social Framework
EHS	Environmental, Health, and safety
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESR	Environmental and Social Responsiveness
ESS	Environmental and Social Standards
GAF	General Authority for Fisheries
GM	Grievance Mechanism
HQ	Head Quarter
IDP	Internal Displaced Persons
IDs	Personal Identifications Cards
IFC	International Finance Corporation
IPF	Investment Project Finance
LMP	Labor Management Procedures
MIS	Management Information System
MSDSs	Material Safety Data Sheets
M.S.L	Mean Sea Level
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment
PTW	Permit to Work
PWP	Public Works Project
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SFISH	Sustainable Fishery Development in Red Sea and Gulf of Aden
SH	Sexual Harassment
SO	Safeguards Officer
SRM	Stakeholder Response Mechanism
SMEPs	Small and Micro Enterprise Promotion Service
TPM	Third Party Monitoring
TVET	Technical Vocational Education Training
UNDP	United Nations Development Program
USA	United States of America
WB	World Bank
WMP	Waste Management Plan

1 Introduction:

The current Environmental and social management plan (ESMP) for the Rehabilitation and Development of AL-Saqr Fish Landing Center is prepared based on the Sustainable Fishery Development in Red Sea and Gulf of Aden (SFISH) Environmental and Social Management Framework (ESMF)[1]. The ESMF was prepared by the United Nations Development Programme (UNDP) to meet the requirements of the World Bank's Environmental and Social Framework (ESF), and the national regulations. The SFISH project ESMF will guide Public Works Project (PWP) to ensure that all subprojects are prepared and implemented in accordance with the ESF requirements, including the preparation of subproject specific site ESMP. For this purpose, the ESMF details how PWP will screen each activity to assess its potential environmental and social risks and impacts and Occupational Health and Safety (OHS) risks and impacts, identify the mitigation measures, and monitor the ESMP implementation, most particularly the environmental and social and OHS performance of subprojects contractors.

According to the World Bank Environmental and Social Standards, the following standards are applicable to the project: ESS1 (Assessment and Management of Environmental and Social Risks and Impacts), ESS2 (Labor and Working Conditions), ESS3 (Resource Efficiency and Pollution Prevention and Management), ESS4 (Community Health and Safety), ESS5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement), ESS6 (Biodiversity Conservation And Sustainable Management Of Living Natural Resources), ESS8 (Cultural Heritage) and ESS10 (Stakeholder Engagement and Information Disclosure). These instruments were prepared and approved by the WB for the parent project, the Sustainable Fishery Development in Red Sea and Gulf of Aden

The Sustainable Fishery Development in Red Sea and Gulf of Aden (SFISH) project aims to improve capacity for sustainable production and economic opportunities for beneficiaries across the fishery value chain in Yemen. The project is funded and supported by the World Bank's International Development Association (IDA) and is proposed as an Investment Project Finance (IPF) with the option for additional resources and countries based on the demand and readiness. The SFISH project includes investments in goods, civil works, services for physical investments, operating costs, and technical assistance.

This ESMP aims to:

- Collect baseline data on the physical, biological, and socio-economic environment in the project area to inform impact assessment and monitoring.
- Evaluate potential environmental and social impacts of the proposed project. This includes impacts during both the construction and operation phases.
- Identify measures to mitigate any potential negative impacts and enhance positive impacts.
- Develop a plan for environmental and social impact analysis and mitigation measures.

[1] https://www.pwpyemen.org/index.php/en/media-center-en/publications/category/14-sustainable-fishery-development-in-red-sea-and-gulf-of-aden-sfish

- Monitor key environmental and social indicators during project implementation to ensure compliance with relevant standards and mitigate impacts. Develop an environmental and social monitoring plan.
- Engage with stakeholders and the public in a transparent and meaningful consultation process. Obtain their feedback and input to inform project design. Develop a stakeholder engagement plan and conduct public consultations.
- Build capacity within the project team and the local community on environmental and social best practices. Conduct training and awareness programs.
- Establish an effective grievance mechanism to receive and address complaints from project affected persons and other stakeholders in a timely manner.

In this ESMP, the sub-project falls under the Fishery sector which is to construct a fish landing for the targeted area in Al-Saqr, Hesween District, Al-Maharah Governorate.
PWP will invest 450,000 US$ to complete the civil works of this sub-project. The sub-project will be implemented by the contractor modality[2]. PWP completed its field visit on 8 June 2023 for environmental and social screening purposes by the environmental specialist, and on 9 February 2023 for the stakeholder and public consultations by social consultant with all subproject stakeholders to ensure the sustainability of this intervention.

The sub-project risk under this ESMP is rated as moderate based on the primary screening and the study of the anticipated risks and impacts, considering that no significant adverse environmental and social, and occupational health and safety impacts are anticipated. Major anticipated adverse impacts during the construction activities of the landing center are considered to be site specific, reversible and temporary. Pollution that could be generated by the production of solid and residual wastes, dust, and noise during implementation and operation phases in the subproject such as the waste of excavation, backfilling, building works, landing center users and worker practices including OHS related issues, use of equipment, machinery, and vehicles, contamination of sea water and related biodiversity and other potential impacts that may emerge during the sub-project life cycle will be managed properly in line with the requirements of the project ESMF and WB ESF. Table 1 below presents the general information relating to the sub-projects' positioning, location, and estimated cost.

Table 1 Shows the introduction general information

Name of the Subproject:	construction of Al-Saqr Fish Landing Center
PWP Subproject ID:	18-9-16075
Subproject Location	Al-Maharah Gov., Hesween Dis, Saqr area
Implementation Modality	General Contracting Modality

[2] The public contracting modality means implementing a subproject by a contractor who is chosen from public tender and public announcement, for construction activities, supply, installation, construction, and commissioning. A contractor may also hire contracted workers from within communities where construction activities will occur.

Sector and Type of Subproject:	Fishery sector
Estimated Cost of Subproject:	US$ 450,000
Estimated ESMP implementation Cost	22,500 US$
Field Visit (Yes/No; Include Date):	Yes- 8 June 2023 for environmental screening. Yes- 9 February 2023 Refer to Public Consultation Section
Was Consultation Carried out? (Yes/No):	Yes, Refer to Public Consultation Section
Implementation Period	9 Months
Beneficiaries	3292 persons include (1,778 men (700 fishermen) and 1,514 women)
Proposed Class of Subproject (Low to High):	Moderate

2 Project Description:

The subproject is to construct a fish landing center in Al-Saqr area in Hesween district Which administratively belongs to Al-Maharah Governorate in Yemen.
Al-Saqr fish landing center is in the west of Al-Saqr area in the Hesween District, in Al-Maharah Governorate, the project site is about 20 km west of the center of Hesween city, while it is about 108 km to the southwest of the city of Al-Ghaydhah. The fish landing center is about 3.5 km to the south of Al-Saqr area, and 1.28 km to the main road of Al-Mukalla-Al-Ghaydhah (N4-M100).

The targeted landing site only have a concrete ramp, which was established through personal efforts by the local community. Therefore, the local community needs appropriate design and construction of their fish landing center, See Figure 6. Additionally, there is a concrete pier for one of the investors from Al-Saqr area, it was built on the edge of the rocky beach from the east side of the center, this investor owns a fish canning factory and an ice factory, as he is the only one benefiting from fish imports in Al-Saqr area. However, the fishermen of Al-Saqr area suffer from the lack of a suitable landing service for fish, as well as from environmental pollution resulting from fish waste, which will lead to environmental pollution for fish, in addition to the lack of an electrical source. Local authorities and communities raised their need to PWP to implement a fish landing project. In response to the communities' needs, the PWP through UNDP proposed implementing fish landing center intervention to mitigate the local community suffering in the targeted area.

The sub-project will include the construction of a fish landing hall with an administration office, a guard room, public toilets, a guard room, a generator room, and a fence of the site.

According to the public consultation in the subproject, there are about 700 resident fishermen as the direct beneficiaries, The indirect beneficiaries that will be benefiting from this subproject are the local population of Al-Saqr area there was 3,293 people[3], including 1,778 males and 1,514 females, in addition, to 200 IDPs, including 150 males, and 50 Females. The subproject will be implemented through a contracting modality and the implementation period will be nine months. The total estimated cost of sub-project is US $ 450,000, while the estimated cost of ESMP implementation will be 22,500 US$.

The contractor will be responsible to protect its workers and communities during implementation and apply the E&S mitigation measures and provide the required training, tools, and necessary PPEs for workers. Contractors will hire the workforce from the targeted areas. Given the fact that the closet village is distanced about 3.5 Km, and some parts of the activities require skilled labor, thus these tasks will be undertaken by appropriately skilled workers from the targeted areas and when not available, the contractors will hire skilled laborers from nearby areas[4]. Accommodation will not be needed if recruited workers have homes at 3.5 km away from project site. However, for workers coming from further areas ,in coordinate with PWP and community committee, the contractor will prioritize building the guard's rooms and toilets first so they can be used for workers accommodation, as well as the contractor will bring tents to cover in terms of minimum space $4m^2$ per worker according to International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD) worker's accommodation guidance note[5]. Contractor will provide worker's accommodation with beds, blankets, and suitable kitchen facilities in the form of caravans. According to consultation, there are no fishermen's associations in Al-Saqr area. The consultation was conducted in February 2023 with **60** males and **4** females from the local community and fishermen (see section 8). Also, PWP enable local community to elect community committee in the targeted area. The elected community committee and their members, participated in the decision-making, need assessment, and public consultation. Also, they will participate in the monitoring of implementation, hand over the sub-project from the contractor to the operator, as well as operation and maintenance. Furthermore, according to SFISH's ESMF under subcomponent 2.1-d (page 11) the training, and capacity building related to sustainable fishing practices, and maintaining hygiene and sanitary aspects to maximize the market values will be conducted by Technical Vocational Education Training (TVET) centers, and Yemeni Fishery Exporters' Association.

This sub-project will enhance the living conditions for targeted communities. As a result of the subproject, targeted community will improve the capacity for sustainable fisheries production and economic opportunities for beneficiaries across the fishery value chain. Furthermore, the project will provide employment opportunities for skilled and unskilled workers from local communities during

[3] According to 2022 projections.

[4] The project will require accommodation since it is expecting the workers will come from the surrounding areas. The contractor will provide a suitable accommodation for them to settle in during the implementation period.

[5] https://www.ifc.org/content/dam/ifc/doc/mgrt/workers-accomodation.pdf

implementation, generating new fishermen, reducing negative economic impacts and generating positive impacts on the targeted areas' economy.

The required stones will be purchased from the local market according to the needs, PWP will do its best to ensure that the stones obtained from the local markets are obtained from primary suppliers who have occupational health and safety procedures in place and who do not employ child labor or forced labor and who use quarries or stone collection sites outside ecologically sensitive zones. PWP will communicate its requirements and policies to the local market and primary suppliers and will do its best to check labor logs and IDs of primary suppliers. PWP will only use primary suppliers who obtain stones outside of ecologically sensitive sites (including important bird areas, key biodiversity areas and protected areas) and areas with no community conflicts, and they will be retained and used on the same day. Public Works Project PWP/Contractor ensures, to the best they can, that the local suppliers obtain the stones from safe quarries away from ecologically sensitive zones and who respect the OHS procedures in place. They will also be taking measures to mitigate any loading and transportation risks. Construction materials such as cement will be sourced from local markets as needed, retained, and used on the same day. Suppliers using forced labor and/or children will not be contracted.

PWP will ensure that the proposed project incorporates the proper environmental and social management principles and practices as outlined in the present ESMP, and thus ensure compliance with the environmental safeguard policies, as well as with the applicable environmental and social policies and legal requirements of Yemen's Government.

2.1 Scope of Work:

The proposed project will involve construction of new fish landing site. The intervention of PWP will include construction of auction yard, build wall and the guard room, public toilets, a concrete base – well-ventilated generator room (without the generator), an electrical control room, a water source (water well) providing a landing site with a water service, electricity, and sanitary system (Toilets, sewage network, a septic tank for collecting sewage, etc.

The subproject activities will include but are not limited to the following:

- Site leveling works.
- Excavation works for a depth 1.5 m, no more than 3 meters width, and no less than 2 meters long for the foundations.
- Backfilling works in layers using the extracted soil or proper materials in all part of works.
- Supply the construction materials such as stones6, sand, and gravel from the market, when needed.
- Implement masonry works under the ground beams.
- Plain concrete works.
- Reinforced concrete works for foundations, columns, slabs, floors, and septic tank.
- Plastering works for interior, and external walls and roofs (3.10 to 5 -meter height).
- Painting works for Interior and exterior walls.
- Tile works for the building, stairs , walls and sidewalks.
- Installation of durable, and Corrosion Resistance steel doors, good-quality wood doors, and aluminum doors.
- Installation of high-quality aluminum windows.
- All sanitary works include
    - Supply and Installing toilets, disabled toilet accessories (handrail- Adjustable toilet).
    - Supply and Installations of sanitary pipes (buried at a depth of 80 cm and 60 cm wide with total length 230m) with diameters of 8, 6 and 4 inches in diameter.
    - Supply and Installations rainwater drainage pipes, 4 inches in diameter.
    - Valves chamber rooms (100X100) cm.
    - Construction a septic tank with dimensions 16.0m x 2.5 m with a depth of 2. 0m and two soakaway[7] pit one for auction hall with discharging directly and the other from bathrooms to septic then to soakaway pit. The septic tank operation is based on an aerobic bacterium which digest sludge, after that the treated wastewater will flow to soak away pit to absorb in soil layers. Therefore, no sludge removal activities will be needed.
    - Supply and installation of a water supply network from roof tanks to new buildings, ¾" inches in diameter and 65 meters long. and they could be slightly buried within 5 cm or less, and some parts of them can be exposed without any issues. This water is sourced from the shallow brackish well allocated to the landing center, which will be used for

[6] Stones will be brought from local markets. The standard stones dimensions are (25*25*25) cm.

[7] A soakaway pit is a dry well or leach pit that is used for the disposal of wastewater, usually from septic tanks. It works by allowing the wastewater to slowly soak into the ground (soakaway) instead of contaminating nearby water sources.

cleaning purposes only. While fresh water will be brought by water trucks from well located about 10 km away according to need for human use in small quantities.

- Supply and installation: 3 fiberglass tanks with a capacity of 3 cubic meters. Drilling a well with a diameter of 18 inches and installing the submersible pump and testing the productivity and analyzing a water sample.
- Drilling a well with a diameter of 18 inches, 13-meter depth and installing the submersible pump and testing the productivity and analyzing a water sample which will be used only for washing. At a 13-meter depth, it is going to be brackish water-salt water due to the shallow depth. It is not ground water from the aquifers which is deeper and at a significant distance from the shoreline. In addition, the TDS of the water is of no importance it is used to just for washing purposes and not drinking. The well will have fences and signs to ensure no falls.

- Gravel backfills for roads and parking vehicles.
- Supply and Implementation of insulation layer of roofs and floors (Flow-applied epoxy resin floor layer).
- Supply and Implementation of insulation layer of roofs (Acrylic).
- All electrical works and installations for buildings and facilities.
- Electrical works for lighting for the public site.
- Electrical wiring works in roofs, floors, and walls.
- Supply and installation the main electrical distribution board
- Supply and installation lighting fixtures.
- Supply and installation electrical roof mounted fans.
- Supply and installation electric socket.
- Installation of an electrical bell and internet network.
- Supply and installation ventilation exhaust fans.
- Supply and installation roadway luminaires.
- Supply and installation earthing system.
- The main electrical distribution board.
- Supply and installation of a metal board with the name of the project, sponsor and the GM hotlines.
- Collecting and transporting the construction waste residues to areas appointed by local authorities.
- Planting the native trees in the sub-project's locations.

It is estimated that the equipment and tools given in the table below will be required to complete the different sub-project engineering activities.

- **Excavation and backfilling works** (Excavator, Backhoe, Bulldozer, Dump truck, Wheel loader, Shovels and spades, Jackhammers, Compactors, and Surveying equipment).
- **Plain and reinforced concrete** (Concrete mixer, Vibrators, Concrete pumps, Trowels, Reinforcement bars (rebars), Bar benders and cutters, Formwork (plywood or metal), Scaffolding, Concrete buckets, and Power tools (drills, saws, grinders, etc.))

- **Stone and block masonry works** (Mortar mixer, Trowels, Masonry hammers and chisels, Levels and, plumb lines, Masonry saws, Jointers and pointing tools, Masonry drills and bits, and Scaffolding)
- **Plastering works** (Plastering trowels, Hawk board, Plaster mixing machine, Sandpaper, Plaster sprayer, Straight edge, Scaffolding, and Spirit level)
- **Painting works** (Paint brushes, Rollers, Paint sprayers, Paint trays, Paint buckets, Drop cloths, Sandpaper, Putty knives, Painter's tape, and Ladders or scaffolding).
- **Tile works** (Tile cutters (manual or electric), Tile spacers, Tile adhesive mixer, Notched trowels, Rubber floats, Grout mixers, Caulking guns, Spirit levels).
- **Sanitary works** (Pipe cutters, Pipe wrenches, Pipe benders, Plumbing snakes, Pipe sealant tape, Plungers, Hacksaws, Soldering irons, and Levels and plumb lines).
- **Lifting equipment for all activities:** Hoists and pulley systems, cranes.

Table 2 Shows the details of the proposed fish landing sub-project

No	Sub-Project ID	Subproject Name	Governorate	Total area of sub-project (m2)	SP Estimated Cost US$	Estimated cost for ESMP Implementation US$	Estimated/ planned No. of Labour
1	18-9-16075	Construction and Development of AL-SAQR Fish Landing Center – Hesween district	Al Mahrah	100,000	450,000	25,000	180

2.2 Location:

The subproject will be implemented in Al-Maharah Governorate, as shown in table 3 and figure 2. The land formation in the targeted areas is sandy, and graduated soil.

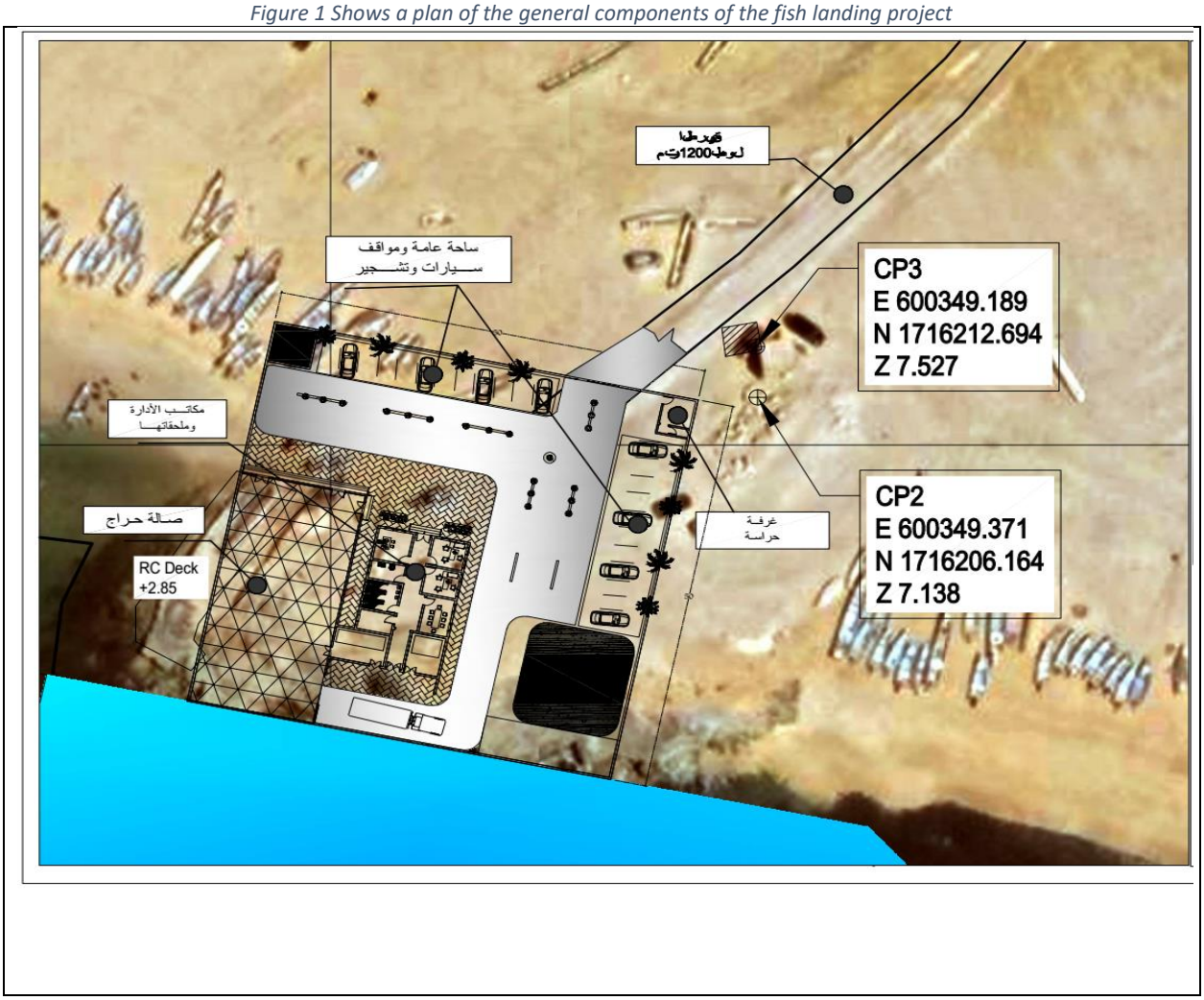
Coordinates of the Location:

Table 3 subprojects coordinate

Governorate	Subproject-ID	District	E (Y)	N (X)	Google Map Link
Al-Maharah	18-9-16075	Hesween	51.936028	15.521250	LINK[8]

Subproject location:

Figure 1 Shows a plan of the general components of the fish landing project



[8] https://maps.app.goo.gl/MrQvgUkegjvdtzh48

3 Environmental and social Baseline Conditions

3.1 Socio-Economic[9]

Yemen is divided geographically into four main regions: the coastal plains in the west, the western highlands, the eastern highlands, and the Rub' al Khali Desert in the east. The subproject is in the coastal plains in the East of Yemen. The benefits of this sub-project include raising the income of beneficiaries, and raising the health situation in the area and providing food security through implementing of fish landing by providing clean products through clean marketing hall. The sub-project will be implemented at Saqr area, Hesween district, in Al-Maharah Governorate

Al-Maharah governorate is in the far southeast of Yemen on the border with the Sultanate of Oman along approximately 500 kilometers of the Arabian Sea coast. It is located 1,318 kilometers east of Sana'a, with an area of 82,405 km2 with a latitude of 957m above m.s.l, and with a population of 0.5% of the Yemen population. The governorate is the least populous in Yemen. It is divided into nine administrative districts and Al-Ghaydhah, its capital, is a coastal town on the Arabian Sea. Based on the 2021 Humanitarian Needs Overview Yemen, OCHA, the population of Al-Maharah governorate, reached (157,606) people, including (99,386) males and (76,220) females, in addition, to 170,000 IDPs (status December 2022). The socioeconomic profile in Al-Maharah is represented by agriculture, livestock breeding, and fishing.

Hesween is one of the directorates with a population of 21,747 persons, including (12,346) males and (9,401) females, based on the 2021 Humanitarian Needs Overview Yemen, OCHA, and with an area of 1,843km2 with an elevation of 490 m above mean sea level (M.S.L.) The socioeconomic profile in Hesween is represented by jobs in fisheries and public and private sectors, and trade activity.

The area of Saqr in Hesween district. The neighborhood in Saqr has service facilities and integrated infrastructure but without a fish landing. It is located at the seashore of the city where fishing is the main economic activity along with trade and some of the people are government employees or the private sector. The targeted areas have a population of 3,293 including men and women. The people in the area are mostly engaged in the fisheries sector

The economic activity

Fishing is one of the most important sources of income for families in the targeted area, followed by trade, followed by daily wage labor. There are no farmers or any agricultural activity in the area.

The unemployment rate in the subproject area reaches 80 %, consisting of 75% able-bodied working-age people and 5% handicapped and old people who are able to work. are .

The area is also characterized by internal migration of up to 10%, while external migration of up to 30 %.

Access to basic services

[9] The data were collected by the PWP technical team during the survey, and other data were taken from the website of the National Information Center, or from the Wikipedia site

Regarding education, there is a primary school in the Hesween, about 2 km from the project area, consisting of 12 classrooms. As for the post-primary stage, it is very far, about 5 km

Regarding health, there is a health unit in the Hesween and a medicine store established by the local authority, about 2 km from the project.

As for drinking water sources, there is a non-governmental water network in the Hesween.

There is no sewage network in the area and the residents suffer from the spread of diseases due to the poor sanitation conditions in the area

Civil Society Associations in the region:

Civil society associations and the private sector have a vital role to play in conserving the environment as well as degrading the environmental resources. NGOs are among the Associations that play a major role in the Yemen society. Most of these associations aim to develop and strengthen collaborations between actors engaged in different parts of the fish production system and provide services in the same field, as well as providing loans and contributions to supporting cultural and social services for fishermen.

There is no association in the area because there are no fish landing centers.

Fishing[10]

Fisheries play a major role in contributing to both poverty alleviation and food security in Yemen as a whole, and currently provide livelihoods for some 60,000-80,000 artisanal fishermen and their families. In many coastal communities, fisheries remain the dominant sector of the economy, and in addition to direct employment and income, create many additional jobs and considerable income through multiplier effects.

Fishing is mostly a full-time, male activity. Women are almost completely cut off from any aspect of direct fishing, and their role is in fish processing, at least among the fisher communities. The fishing expertise of individual fishermen (i.e., the duration in fishing) is a key element, because he needs to know all fishing activities, at the different production cycles. Fishing expertise also dictates behavior and codes of conduct, such as best practices in resource management and conservation. However, a much larger population (difficult to estimate) is involved in different fisheries related activities, such as fish processing and marketing, transport, boats building and repairing, etc.

According to a report by the Fisheries Cooperatives Union (FCU), there are 14,000 fishing vessels in Yemen. Two basic types of boats may be found in all Yemeni coastal areas:

- The huri is the most common: it is a canoe-like boat (from 6 to 20 meters long) of 15, 20 or 25 tons hold capacity, with an outboard engine; its crew is generally made up of 2 to 6 persons. Small huris can be seen anchored or lying on the beach, at all fishing centers. They cannot be operated when the seas are too rough.

[10] Bonfiglioli, A., & Hariri, K. I. (2004). Small-scale Fisheries in Yemen. The World Bank.

- The sanbuuq is a large wooden boat, with an inboard engine. There are different types of sanbuuqs, ranging from 25 to up to 70 tons hold capacity; 12 - 15m long keels with 150 - 250 horsepower diesel engines). capacity (up to 5 tons of iced fish), and size of the crew (10 to 20 persons or more). Figure 2 shows these two types of boats.

Figure 2: Types of boats found in Yemen

	
A fiberglass larger *huri* with a 3-person crew	Large sanbuuqs

Manual fishing methods include a variety of fishing gear such as handlines, trolling lines, longlines, traps, cast nets, beach seine-nets, gill nets and round hawl nets, and so on, according to fish species. A boat should normally be equipped with different types of nets, according to the seasons and the types of species harvested. The lack of ice and ice storage on the boats is considered as a major constraint of the entire artisanal industry. However, large boats take ice (about 1,000 kg per fishing expedition). According to Republican Decree Law No. (42) of 1991 Regulating the fishing, exploitation and protection of aquatic life, which authorizing the Ministry of Fisheries and its affiliated bodies to determine of fishing areas, the opening and closing of fishing seasons, also identify fishing gears that not due harm to aquatic life[11].

According to Regional Organization for the Conservation of the Environment of Red Sea and Gulf of Aden PERSGA, fishing is a highly seasonal activity, which depends on climatologic elements (variations in winds and sea conditions) as well as on fish behavioral factors (some fish species is available throughout the year, others only at certain times of the day or at certain seasons). Artisanal fishing is mostly concentrated within 40 km from shore. There are high seasonal variations in terms of fish harvesting, depending on the species and their characteristics (see table 4). During the period June-September (south-west monsoon): While catch of sardines stops completely, catches of other fish stocks increase. Shark is the only stock which is not affected by the monsoon. March-April is the peak period for Yellowfin tuna catches. Lobster fisheries is closed from June to September, and the most productive period is from October to December.

[11] For more information see link: https://yemen-nic.info/db/laws_ye/detail.php?ID=11319

Table 4: Seasons (Yemeni coastal areas)

PERIOD	ENGLISH	ARABIC
April-June	Pre-monsoon	Futtur
June-Sept.	Monsoon	Shamal
Sept-Nov	Post-monsoon	Futtur
Nov-March	Winter	azyab

The nearby areas (Al-Masilah) is famous for exporting Lethrinus and shrimp widely, and is also famous for other species such as Parrotfish, Tuna, Sardines and various types of crustaceans.

Physical Environment

3.2 Meteorological conditions:

The dry tropical climate prevails in Al Mahrah Governorate, with the exception of Hawf District, where rainfall falls regularly annually, starting from June until September. Temperatures range between 18 -33°C in the coastal areas adjacent to the Arabian Sea coast due to the blowing of seasonal winds.

Al Mahrah Governorate has a dry tropical climate with annual rainfall. Due to its proximity to large bodies of water (the Arabian Sea), the humidity ranges between 30-71%, unlike other coastal cities, due to rainfall and the spread of vegetation.

As for rain, it rains regularly every year from June to September.

The maximum wind speed is 61 km/h, and this is due to the fact that most of the city is located on the eastern coast and in an open area.

The weather in Yemen is generally clear during most days of the year. This is shown by the data on solar brightness recorded in a number of regions of the country with different ranges. The annual average ranges between 6 and 10 hours of brightness per day. The data showed that solar radiation is lower during the year in the coastal zone (less than 5500 MJ/m2/year).

3.3 Hydrology

Ground Water:

There are no groundwater wells in the Hasween area near the project area and no groundwater present in the project area.

Surface Water:

There are no surface water bodies near the project. While there are some areas where rainwater accumulates due to runoff from the plateaus, these collection areas are located more than 90 km away from the project site and are not connected to the sea.

Seawater

Turbidity

The major source of turbidity in the coastal water is typically phytoplankton, particulates, silts from shoreline erosion, resuspended bottom sediments, and organic detritus. In comparison with the open oceans, the water turbidity in the coastal region is highly dynamic and closely associated with the atmosphere, and ocean variability, such as cyclones[12] and algae blooms[13].

In the study conducted in the Gulf of Aden waters, the average turbidity values were 0.2 turbidity units. The seasonal values showed that the highest turbidity was during August and September. The turbidity in the coast was characterized by low turbidity values and large temporal variability. The total surface turbidity in the coast ranged between 0.2 and 3.5 turbidity units.

Sea level

The sea level at the Gulf of Aden rises between September and May and falls during June-July to reach the minimum in August. The seasonal oscillations in the mean sea level is attributed to astronomical effects, effects of evaporation, very low to negligible precipitation and river discharge, atmospheric pressure, and steric sea-level effects.

Currents:

Currents are stronger in the Gulf of Aden than in the Red Sea and are associated with the direction and force of the north-east and south-west monsoons. During the winter, driven by the north-east monsoon, they set west-south-west along the coast of Yemen at an average rate of around 0.25 knots. The middle of the Gulf of Aden, the current sets from the Horn of Africa to the west at average rates of 0.5 knots. However, stronger rates have been reported in some parts of the Gulf of Aden.

During the south-west monsoon in the summer months, the current along the Yemeni coast consistently sets east-northeast at an average rate of 1.0 knot, although rates of up to 3.0 knots have been recorded at this time. In the middle of the Gulf of Aden the currents are more variable, with counter currents tending to set from east to west[14].

Tides

The tide of the Indian Ocean and Gulf of Aden does not enter the Red Sea, where a different tidal regime is found. In the Gulf of Aden tides are generally diurnal, or a mix of diurnal and semi-diurnal tide. The

[12] Shi, X., Y. Wang, & X.D., X. (2008). Effect of mesoscale topography over the Tibetan Plateau on summer precipitation in China

[13] Wang, M., & Shi, W. (2008). Satellite observed blue-green algae blooms in China's Lake.

[14] Gladstone, W., Facey, R., & Hariri, K. (2006). State of the marine environment: report for the red sea and Gulf of Aden. Jeddah: Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA).

maximum spring range at Aden is 2.7 m and at Djibouti 3.0 m. At the eastern end of the Gulf of Aden the tide becomes more semidiurnal, with an extreme range of around 2.7 m. Tidal streams in the Gulf of Aden are generally weak and masked by the current[Error! Bookmark not defined.]

The fish landing center will be located on a slightly sloping sandy coast, and this coast is wide enough for the tides, as the highest tide in the fall will reach 70 meters. The center is located approximately 20 meters inland from the high tide line and due to this safe distance, the waves will not reach the landing center and there will be no effects on it.

3.4 Cultural Heritage

The district where the sub-project is located does not encompass any archaeological site and it is not located nearby any of the cultural heritage areas of the city. The sub-project is located at a limited scope which is away from any heritage sites.

3.5 Soil and Geology:

The project is located on the coast of Al-Mahra, which constitutes approximately 10% of the total Yemeni coastline. The coastline mainly consists of sandy beaches interspersed with some rocky headlands. The sandy coast dominates extensively toward the open sea, with a gentle slope of the seabed extending to a distance of over 300 meters, where solid substrates are present.

3.6 Air Quality and Noise:

There are no sources of noise as it is a remote area. The project area has good air quality due to its coastal location and the absence of high-density urban presence or industrial activities. There is some dust pollution due to unpaved roads and occasional vehicle emissions.

3.7 Biodiversity:

Fauna and Flora

The sub-project area has no areas of high biodiversity importance, biodiversity sites. The area is not ecologically sensitive and do not have high biological importance, and there are no endangered species present. According to the Bird Life International and key biodiversity areas websites, the sub-project is located outside the Important Bird Area (IBAs) and key biodiversity areas (KBAs).

Due to the desert nature that constitutes most of the surface of Al Mahrah Governorate, this greatly affects the quality and quantity of vegetation cover. Thus, most of the vegetation cover available on the surface of the governorate is represented by desert plants and herbs, which often grow and increase in the rainy seasons. In addition to other types of perennial trees, especially thorny ones such as samr, sesban, in addition to limited quantities of sidr trees, palm trees, etc.[15]

[15] http://yemen-nic.info/gover/almahraa/brife/

There is no native plant species present at the project site, so the project will not result in any tree cutting or removal.

There are many wild animals that Al Mahrah Governorate is famous for, the most important of which are tigers, foxes, rabbits, and other species such as thorny hedgehogs, hyraxes, etc. There are also very small numbers of gazelles. All of these species are found in uninhabited areas. There are also different types of birds, the most important of which are falcons, wild pigeons, kites, owls, and other small birds of different sizes and names, which are often found in agricultural areas and valleys with dense trees. [16]

The proposed fish landing site does not contain the types of wildlife, reptiles, or insects mentioned above, because it is not an agricultural or valleys areas with human activities. Through a survey of the project area, some resident non-migratory seabirds (gulls) were monitored on the sandy coast. The necessary measures will be taken to reduce any risks to these creatures present near the project.

Al Mahrah is famous for having a natural reserve, which is the Hawf Protected Area, and it is considered a home to many wild animals, birds, and rare species of plants. It is about 150 km from the project.

Coral Reefs:

The warm water and absence of freshwater input provide very suitable conditions for coral reef formation adjacent to the coastline. They provide food and shelter for a large and diverse fauna and flora. Most fishing activities in the Region occur in shallow waters in the vicinity of coral reefs. Physical destruction, changes in water quality—such as raised nutrient levels, and changes in salinity and temperature—high levels of sedimentation, and changes in water currents can all damage coral reefs.

No coral reefs were observed in the project area and the closest area to these reefs is the Hof Protected Area which is about 150 km away from the project.

3.8. Turtles

Coastal beaches of the Gulf of Aden are of great importance to survival of two threatened species of sea turtles- the green turtle (*Chelonia mydas*), and the hawksbill turtle (*Ertochelys imbricata*). No sea turtles were observed in the project area and the closest area where these turtles are found is the Hof Protected Area which is about 150 km from the project and the Sharma Reserve which is about 220 km away. There are no marine turtles or nesting sites in the vicinity of the project area. Existing Situation of the Targeted Areas:

The targeted landing site only have a concrete ramp, which was established through personal efforts by the local community. Therefore, the local community needs appropriate design and construction of their fish landing center, See Figure 6. Additionally, there is a concrete pier for one of the investors from Al-Saqr area, it was built on the edge of the rocky beach from the east side of the center, this investor owns a fish canning factory and an ice factory, as he is the only one who benefits from fish imports in Al-Saqr area. However, the fishermen of Al-Saqr area suffer from the lack of a suitable landing service for

[16] http://yemen-nic.info/gover/almahraa/brife/

fish, as well as from environmental pollution resulting from fish waste, which will lead to environmental pollution for fish. Local authorities and communities raised their need to PWP to implement a fish landing project. In response to the communities' needs, the PWP through UNDP proposed implementing fish landing center intervention to mitigate the local community suffering in the targeted area.

The project area is coastal, about 1,200 meters away from the international line to Al-Mahra by a unpaved road. This existing road is not paved but it is usable to access the center. The area needs to construct fish landing center for boats landing. The project aims to develop fisheries in the fish landing center through the provision of equipment, and construction of buildings, facilities and selling halls, creation of sustainable job opportunities for men and women who are able to work in the project, improve the performance and efficiency of the economic center to take into account service provision, operation and maintenance and international standards, enhance food security.

Below are some photos from the targeted areas explaining the current situation:

Figure 3 Existing Situation of the Targeted Area

3.8 Targeted Beneficiaries:

The intervention aimed at strengthening regional fishery information management and improving capacity for sustainable production and economic opportunities for beneficiaries across the fishery value chain in Yemen. The activities of the subproject will serve the local community that is considered the project's direct beneficiaries. Table 4 below shows the total number of beneficiaries segregated by gender:

Table 5 Total number of beneficiaries segregated by gender

Subproject -ID	District	Benefited Neighborhoods	Beneficiaries[17]		
			Male	Female	Total
18-9-16075	Fish landing sub-project at Saqr, Hesween, Al-Maharah	1	1,778	1,514	3,293
Total		**1**	**1,778**	**1,514**	**3,293**

The selection of the community beneficiaries is based on transparent eligibility criteria and consultations with communities and local leaders. Before implementation and during the participatory consultations with local communities to define the interventions, PWP's teams confirm the local priority intervention and ensure that the intervention is in its suitable place.

4 Environmental and Social Impact Assessment:

4.1 Applicability:

As a result of the screening process the relevant standards of the World Bank's Environmental and Social Framework (ESF) that apply to the subproject are:

- ESS1: Assessment and Management of Environmental and Social Risks and Impact,
- ESS2: Labor and Working Conditions,
- ESS3: Resource Efficiency and Pollution Prevention and Management,
- ESS4: Community Health and Safety
- ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS10: Stakeholder Engagement and Information Disclosure

[17] The number of beneficiaries calculated from the visits of the social mobilized teams who take the number from the community's leaders. Mostly the population numbers are taken from 2004 Residential census multiplied by the increase equation. 2004 census is the last made in Yemen.

SFISH ESMF have been applied because this sub-project may pose moderate environmental and social impacts such as but not limited to residual wastes, child labour, and occupational health and safety (OHS) impacts.

4.2 Eligibility (Responsive Criteria and Exclusion List):

This subproject is eligible for support as per the PWP Environmental and Social Responsiveness (ESR) Criteria, see Annex 3.

4.3 Environmental and Social Screening:

An Environmental and Social screening has been conducted by PWP ES safeguards consultant and designer engineers through a site visit to subproject site, using the screening checklist attached in Annex 2.

Positive impacts:

The sub-project will have a positive impact on the environment and communities in the targeted area to implement a fish landing center to alleviate the communities suffering in the targeted location and provide Job opportunities during implementation for workers from local communities, as that will enhance different sectors such as the economy and health services in the targeted area and will enhance the community's social protection and resilience.

Negative risks and/or impacts

During the implementation , potential negative environmental and social impacts may occur, such as child labor and forced labor , Sexual Exploitation and Abuse /Sexual Harassment (SEA/SH), discrimination against vulnerable groups, lack of workers' awareness and knowledge about local community cultures , financial exploitation of community, potential challenges in finding skilled workers from the local area, public safety concerns, particularly unauthorized access to construction sites, community dissatisfaction with project activities, and poor labor management practices, including non-transparent recruitment procedures.

During the implementation, there are potential negative impacts on the environment that may occur, such as Air pollution due to dust from excavations and removal of debris activities and emissions risk (i.e., CO, NOX, SOX, etc.) from machinery such as loaders, water, and waste transport trucks. No latrines near the project site and workers may have to practice open defecation, soil contamination from accidental oil or fuel spills and from liquid waste, Solid waste produced by workers (trash and plastic bags) accumulates and pollutes the environment and stones waste accumulation and soil excavation, contamination of water resources, drain on water resources, Water contamination by construction waste, and impacts on seawater, Sewage and liquid pollution discharge to sea water and Risks on coastal and marine habitats and related biodiversity including non-migratory seabirds (gulls), Flood risks during the implementation, probability of an archaeological discovery during the activities

With regard to occupational health and safety during implementation, minor and moderate injuries may occur during the activities of the subproject for workers, including injuries related to using scaffolding or

ladders. Shoulders and back muscles injuries while lifting materials in the wrong way or lifting heavy loads for long distances, such as lifting stones, cement bags, etc. Exposure to sun heat and bad weather conditions such as sandstorms and heavy rain. Dust, sand, or small parts volatilize during work, causing breathing difficulties. Exposure to noise from machines. Using improper or defective tools. Handling chemicals (i.e., cement, epoxy, paint) causing skin, eye irritation, and difficulty breathing. Blisters on the hands or skin during activities (mixing cement, evacuation, transporting material). Lack of a traffic management plan at the work site and risk of accidents. Risks while planting trees. Risk of Lifting Activity during use of lifting equipment such as a crane. Electrical hazards that may lead to electrocution of workers or ignition of fires. Risks of falling into excavated zones or falling from heights. Additionally risks from drowning in case workers decide to go for a swim during break time. Hazards related to confined spaces such as tanks, pits, sewers, etc.

Risks during operation and maintenance.

During the operation phase of the sub-project, there may be potential negative impacts on the social and environmental aspects, such as lack of maintenance of the center, Solid waste disposal and solid waste produced by landing center operation, Biodiversity and seabirds Conservation.

There may be potential negative impacts on the social and environmental aspects such as the depletion of fish stocks in the surrounding waters due to poorly managed fishing practices. The risk of increase in boat and fishermen number as a result of the upgrading and increasing auction halls capacities to receive more fishermen which may in turn put a pressure on fish stock in the area/overfishing.

The subproject takes place in a context where overfishing is possible. Exploitative fishing techniques and using non sustainable fishing gear and methods may pose a risk on biodiversity and fish stock. Additionally, fishing during spawning seasons may also decrease the number of mature fish and damage the value of the fisheries. The deterioration of government-controlled centres and weakness of monitoring practices are a key reason for the proliferation of such practices.

Furthermore, improper maintenance of boats and accidental oil and fuel leaks may impact the biodiversity and fish stock in the area. Improper disposal of fish waste, oils, and chemicals used in the center has the potential to damage the water, soil, and air. Underage child labor, especially during peak seasons. Health and safety issues may arise during handling fish waste, biohazards, and poor hygienic practices are exposed to injuries.

PWP will ensure OHS measures are in place and monitor the environmental and social issues during the implementation of the sub-project with the support of the community committee which will be involved in the monitoring, as well as following up on the complaints system to ensure that all complaints are received, reported, and resolved quickly.

4.4 Land Acquisition/use and Economic and/or Physical Displacement:

The intervention will be implemented on a site with a total area of approximately 100,000 square meters (200 x 500 meters), owned by the General Authority for Fisheries in Al Mahrah Governorate, as shown in the document in Annex (5). Therefore, it will not require any land donation or cause any physical and/or economic displacement in accordance with WB ESS 5. In addition, the sub-project will not cause any economic resettlement (more details in Resources and Services' access restrictions in section 4.5).

The Public Works Project (PWP) has further formalized its commitment to implement this sub-project by securing a social agreement with the targeted community and local authority. The social agreement was concluded between the Public Works Project on the one hand and representatives of the local community committees (CCs), and the local authority on the other hand. This agreement includes the conditions and responsibilities between the two parties for the purpose of smooth implementation of the subprojects without obstacles, with the commitment of the local community representatives to facilitate and resolve any issues that may arise during implementing the subproject and after implementation as well, such as facilitating the work of technical and community studies, as well as facilitating implementation procedures after approving the subproject by facilitating the work of the implementing contractor at the agreed upon project site, as well as to operate the subprojects for the purpose which it was created for (Public interest). To review the signatures and stamps of parties with targeted communities and local authorities to implement this subproject, as detailed in Annex 4 of the same document.

4.5 Resources and services' access restriction

The sub-project will not cause any restrictions on the services and facilities available at the Al-Saqr Fish Landing Center site during the implementation period, as the project aims to establish new facilities and components for a center that does not have any facilities and services.

4.6 Gender and Social related issues:

Males and females were consulted and participated in developing and designing the subprojects to ensure they respond to the needs of all community groups including men, and women. The subproject will take into consideration providing local communities with all support that increase their livelihoods and beneficiaries. This will include people with disabilities, females, males, and children.

4.7 Child Labor:

According to project ESMF and LMP, no child labour/forced labour will be hired for subproject activities at all work sites including subprojects' quarries. The minimum accepted age is 18 years old, and verification of age will be done before starting the work by checking IDs and other available documents before the commencement of any work. A labour log will be kept, and all workers will be registered, according to contract conditions the contractors and workers should be aware of and sign the code of conduct that states that child labour is not allowed.

4.8 Gender Equity:

PWP has ensured gender equity in the subproject's cycle as a core principle for the subproject's success. PWP is mainstreaming Gender in all aspects of the subproject's cycle as well as raising awareness amongst

both male and female community members on job opportunities during subproject implementation18. The total number of targeted beneficiaries for the sub-project is 3,293 including 1,514 women, and 1,778 men. PWP has engaged and involved the beneficiaries in the consultation process to ensure their concerns and feedback are taken into consideration without any discrimination.

The consultation was conducted with 60 males and 4 females. Also, PWP established the community committee in the targeted area by sending the social consultants' teams (male and female) and conducting focal groups discussion including women and men to enable participation in the electing of the community committees. The elected community committee and their members including women and men participated in the decision-making, need assessment, and public consultation. Also, they will participate in the monitoring of implementation, receiving the subproject, as well as operation and maintenance.

The number of elected community committees is one committee for the sub-project, and the number of their members is 5 males and 0 females. PWP conducted one training and awareness-raising for consulted beneficiaries and community committee on, SEA/SH, and other disease prevention measures, and health & hygiene. This also includes using the GM to report any of gender discrimination, SEA, and SH cases with the highest level of confidentiality and anonymity of complaints. Furthermore, the Gender & Social Specialist will hence direct its activities to attain the PWP principles regarding gender, most importantly mainstreaming gender and equal participation into the subproject cycle phases and creating job opportunities. Table 5 below provides the figures on Subprojects' beneficiaries, public consultations, and community committees per gender

Table 6 Subprojects' beneficiaries, public consultations, community committees per gender

Subproject ID	Beneficiaries			Public Consultation			Community Committees		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
18-9-16075	1,778	1,514	3,293	60	4	64	5	0	5

4.9 Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH)[19]

PWP raised the awareness of community members, both men, women, and persons with disabilities regarding Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH) during the public consultation process as well as raising community awareness on Grievance Mechanism (GM) processes and how it can be used to address complaints resulting from project activities including gender discrimination and incidents of SEA/SH. Such incidents shall be treated with the highest level of confidentiality and anonymity in a survivor-centered process. Mandatory awareness training and sensitization sessions about refraining

[18] Mostly the activities of FISH landing project, the Yemeni women have the ability to participate in as a workforce. From PWP side, it is our procedures to give the women opportunity to participate since she has the ability to engage in such works. For example, woman can participate as supervisor or in cleaning or processing the fish, etc

[19] World Bank Good Practice Note Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works https://thedocs.worldbank.org/en/doc/6f3d9ddc6010c4221315dd1282958e41-0290032022/original/SEA-SH-Civil-Works-GPN-Third-Edition-Final-October-12-2022.pdf

from unacceptable conduct towards local community members, specifically, women will be conducted by PWP through supervisor engineer and subarea staff for all contractors and workers throughout the project lifecycle. This also includes informing workers about the national laws that make sexual harassment, sexual exploitation and abuse, a serious and punishable offense.

4.10 Conflict sensitivity and Do No Harm

PWP has its conflict sensitivity manual to manage any conflict cases during the project cycle. Conflict sensitivity is given high priority and integrated into decision-making criteria in project approval. PWP adopts specific approaches when targeting the beneficiaries and defines their prioritization. Targeted communities provide their consent, acceptance, and satisfaction with the chosen interventions. No concerns were raised by the communities against the subprojects. Public consultation included ensuring conflict sensitivity screening. In case of conflicts that cannot be resolved, the sub-project will be rejected. Also, conflict sensitivity is taken into consideration in the monitoring and reporting processes during the implementation. Furthermore, the elected community committees are trained to manage, monitor, and report any conflict that might be generated during the project cycle. Generally, the subproject will help to build the resilience of the communities and improve their living conditions positively.

5 Environmental and Social Impact Analysis Plan and Mitigation Measures:

5.1 Environmental and Social Management Plan:

Table 7 Environmental and Social Management Plan

Sup-Project phase	Potential Impact Factor	Mitigation Measure	Personnel / Institution Responsible For Execution	Estimated Cost/ SP
Social and community Impacts				
Implementation	Child labor/forced labor risk	•Ensure child labor is not permitted; all workers are 18 Years old and above •Verifying age by checking IDs and other available documents. •Ensure a Labor Log is available, and all workers are registered •Avoid buying raw material from suppliers that employ children through checking the requirements and policies of the primary supplier, reviewing labor conditions and labor log of the primary supplier and communicating the requirements of PWP and UNDP regarding child labor to the supplier. •Adherence to the LMP and ESMP, with no persons under the age of 18 and/or in bonded-labor situations engaged with construction activities in the project •Mandatory and repeated training and awareness-raising sessions for refraining child labor. •Ensure the contractor looks for a different supplier who meets the requirement if current supplier fails to meet the requirements.	•Resident Engineer •PWP Safeguard Officer •Community Committee •Contractor	N. A

	Sexual harassment, sexual exploitation and abuse (SEA/SH)	• Enforce total adherence to ethical code of conduct and to adhere to it. • Training and strong communication of zero tolerance to SEA/SH. • Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. • Informing workers about national laws that make sexual harassment a punishable offense that is prosecuted. • Raise awareness of the GM system and how it can be used to report any SEA/SH cases	•Contractor •Resident Engineer •Community Committee •Gender Focal Point	500$
	Discrimination against women and persons with disabilities when selecting beneficiaries	• PWP adopts a non-discrimination policy that ensures a non-discriminatory and inclusive manner, including women and persons with disabilities when selecting sub-project. The policy also ensures the inclusion of women in community committees as well. • Provides opportunities for women and other vulnerable groups to be consulted in a place and time convenient to them and which allows them to freely express their views	•PWP Sub-area Staff •Community Committee •Gender Focal Point[20]	N.A
	Lack of workers' awareness and knowledge on respecting local community cultures, and social safeguard issues on Gender, and SEA/SH.	• Implement a systematic awareness campaign to increase workers' awareness of local community tradition and cultures and the need to respect them • Contactor and its workers to sign the Code of Conduct. • Ensure workers respect and adhere to the Code of Conduct (CoC) for the local community's protection and do no harm. • GM system in place to handle any issues on Gender, and SEA/SH.	•Contractor •Resident Engineer •Community Committee •Gender Focal Point	500$

[20] The Gender Focal Point is responsible for conducting Public Consultation, ensuring women participation in the selection of subproject, consensus on the subproject, site location, establishing Community committees including women representatives, resolving complaints related to SEA issues and monitoring during construction phases. PWP staff participate in the public consultation, discuss details, raise awareness on SEP, and discuss stakeholder concerns vis a vis the subproject community committee's formation and collection of community data / profiles. Community committee is responsible for raising the awareness between society, helping in solving problem and obstacles, accordingly, supporting the monitoring in sites and helping to solve GM complaints in site as possible.

Implementation	Financial exploitation of community or beneficiaries	• Inform the beneficiaries that the sub-project is provided for free, and they should not pay anyone to get benefits from the sub-project. • Prepare and publicize in the community a transparent recruitment procedure • Raise awareness among PWP consultants and resident engineers that there is zero tolerance for any cases of financial exploitation. • Raise the awareness of the community committee, workers, and communities on the GM system and how it can be used to report any financial exploitation • -Inform consultants, resident engineers, and the community about PWP regulations that make financial exploitation a serious contravention.	•PWP •Community Committee	N.A
	No skilled workers in the targeted areas for construction works.	• Skilled workers will be hired from neighboring areas if not available from targeted area. • In coordinate with PWP and community committee, the contractor will finish the existing buildings such as guard's rooms and toilets to be used for workers accommodation in terms of minimum space 4m2 per worker. • provide good canteen and cooking and laundry facilities. • Allow for regular breaks and provide permanent water supply.	•Contractor •PWP •Resident Engineer •Community Committee	N.A
	Public Health includes risks of public and children's access to the worksite	• Install fences, barriers, dangerous warning/prohibition sites around the construction area which show potential danger to public people. • Place appropriate warning and directional signs at areas where construction is taking place. • Erect removable barriers • Limit in coordination with traffic authorities the movement of heavy vehicles on roads/lanes used by the public during traffic peak hours. • implement regular inspection by site guard.	•Community Committee •Contractor •Resident Engineer	N.A

		• awareness of the public about risks and hazards at the project construction areas before the commencement on site • Ensure all types of wastes are removed appropriately		
	Community dissatisfaction by Sub-project activities and Community participation	• Hold public interviews to address concerns/comments about construction and bypass issues. • Inform public/beneficiaries before activities commencement about GM. • Install an on-site, identification stand, containing how to communicate GM. • Ensure that Complaint forms are available on the site.	• PWP • Resident Engineer • Community Committees	NA

Implementation	Complaints Occurrence	• GM should be established by the Contractor and PWP • Inform the public about GM contact information and the method of submitting complaints. • Details of complaints received should be incorporated into the audits as part of the monitoring process and respond to settle the complaint quickly and accordingly. • All complaints must be addressed quickly within the timeframe given in the GM.	• Contractor • PWP	N.A
Environmental Impacts				

Implementation	Air pollution due to dust from activities and gas emissions from machines	• Spray the work area with water regularly to reduce the dust. Water spraying can be carried using sea water • Use dust sweeping methods • Avoid working during dust storms and windy days. • Ensure workers wear masks. • Material loads must be suitably secured/covered during transportation to prevent the scattering of soil, sand, materials, or dust[21]. • Properly cover waste during transportation • Exposed soil and material stockpiles must be protected against wind direction and the location of stockpiles shall take into consideration the prevailing wind direction. • Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes • Provide adequate protective wear/gear for workers, and equipment must be maintained regularly to avoid any emissions. • Offer good practice awareness to workers to turn off vehicles and machinery when not in use	•Contractor	N.A
	Loud noise and severe vibration are caused by machines and vehicles.	• Avoiding or minimizing transportation through or processing material in community areas (like concrete mixing). • Restrict activities that create lots of noise—e.g., vibrations, heavy equipment moving earth, excavations, to normal working daylight hours. • Require workers/contractor(s) to use equipment and automobiles that are in good working condition to reduce noise or exhaust fumes. • Machinery must be maintained regularly to avoid exceeding noise emissions from poorly maintained machines. • Limit noisy activities to normal daylight hours.	•Contractor	N.A

[21] WBG General EHS Guidelines as good practice references are used during the implementation as Guidelines.

Implementation		• Limit vehicle speed at critical locations (Limits of 10, 15 or 20 mph may be appropriate depending on the vehicles used, site layout and hazards). • Provide workers with ear mufflers • Measures to reduce noise to acceptable levels must be implemented and could include silencers, mufflers.		
	No latrines near the project site and workers may have to practice open defecation.	• Ensure that the contractor has provided temporary latrines at the sub-project site before starting works and should be connected to a covered cesspit or septic tanks. • Finishing the existing latrines or constructing well-insulated latrines, hand-washing basins, and supplying them with water. • In case the presence of women workers, ensure latrines are separated by gender. • Maintain good housekeeping in rented houses and cesspits. • Ensure soap and water are always present in rented houses with latrines • Managing and supplying the latrine with water and soap daily • Latrine and cesspits or septic tank are located away from the sea water and any runoff zones • Cesspits are properly covered • Latrine will be removed, and cesspits will be backfilled at the end of the subproject • Ensure workers dealing with waste wear proper PPEs • Ensure proper housekeeping of latrines and cesspits. by collecting waste in designated area enclosed and not facing wind and regularly disposing them in areas appointed by local authorities	•Contractor •Resident Engineer	$500 for the sub-project
	Soil contamination from accidental oil or fuel spills and from liquid waste	• Complete site cleanup and removal of all existing waste • Properly store all types of waste and hazardous chemicals if any in insulated areas to avoid spillage and away from runoff areas and sea zone (i.e. oil)	•Contractor •Resident Engineer	N.A

		• Properly store chemicals such as oil, paint, and cement according to their Material Safety Data Sheets (MSDSs) • Oil change, vehicle and equipment maintenance, and fuel filling must be carried out in well-isolated, designated areas to ensure that no leakage occurs into the soil away from water runoff areas and sea water body. • Ensure oil change, machine maintenance or mixing cement is done at designated insulated areas away from the soil, water areas, and drains. • Carry out machine maintenance and oil change at service centers if present • Store fuel and oil away from shore and heat at a well-ventilated area and provide suitable fire extinguishers. • Installing clear signboards for the emergency spill kit area on the isolated activities. • Only use well maintained equipment to avoid potential leaks • Oil change and maintenance must be handled by trained personnel • Construction waste should be stored and handled in designated areas away from the soil and water runoffs • Avoid working during rainy seasons, and dust storms. • Ensure the presence of spill prevention kits and remove any spills instantly • Provide training on environmental safety measures and hazardous materials and waste management measures • Properly label the chemicals and materials • Only use trained workers in handling storing and disposing chemicals and materials and disposal should be done via a certified contractor • Only use well maintained equipment to avoid potential leaks and perform regular maintenance and maintain a machine and extinguisher maintenance log •		

	Probability of an archaeological discovery or chance find during the activities	• Ensure to stop the work in the discovery area and inform the Antiquities Authority and the local authority. • Ensure to prevent seizing any archaeological items and contact the Antiquities Authority with an official report in order for them to make appropriate decision. • Ensure that awareness sessions are held for all workers on the importance of archaeological finds and report any archaeological items that are found during the implementation of project activities and stop any activities until further notice from the antiquity's authority.	• PWP • Contractor • Resident Engineer • Community Committee	N. A
	Solid waste produced by workers (trash and plastic bags) accumulates and pollutes the environment and Stones waste accumulation and soil excavation	• Ensure that workers regularly collect all solid trash in enclosed bags stored at inaccessible areas to animals and transport them to the designated landfill or dispose of it in a proper way that does not impact the environment. • Installing clear signboards for the emergency spill kit area on the isolated activities. • Contractor will have on site, only quantities of materials needed for each period. • Waste management procedures will be added in the tender documents to ensure proper management of waste in the worksites. • Empty paints cans store in closed drums or isolated area from soil and water at Contractor store, then handling as recycled metal scrap. • Ensure good housekeeping practices at latrines. • Ensure no wastes are stored near wadis or runoffs and ensure regular disposal by certified contractors • Waste transport trucks are properly covered • An appropriate mechanism was agreed upon for the management of waste resulting from the excavation to be transported to pre-designated areas. Dust residues that may be produced are moved to the designated areas • Properly covering trucks that transport collected waste to avoid spillage during transportation.	• Community Committee • Contractor • Resident Engineer	N. A

		• Attach the waste receipt from the relevant landfill authorities. • The Contractor's staff should be trained in waste handling. • Ensure that the primary supplier uses quarries are not located in ecologically sensitive zones, not zones with community conflicts. •		
	Contamination of water resources, drain on water resources, Water contamination by construction waste, and impacts on seawater.	• Minimize interference with nearby water sources and seawater. • Application of conservation measures for water • Development of adequate water storage on the site. • Justify processes used in the construction activities that consume the most water (e.g., concrete mixing plant using water closed circuit, vehicles and other equipment washing waters to be reused as far as possible). • Implementing erosion and sediment control measures, such as installing silt fences and erosion control blankets, to minimize soil and water pollution. • The temporary toilets for workers will connect to an underground cesspit. • the cesspit will be suctioned to remove the sludge and wastewater to approved places. • • Cesspit and toilets will be demolished at the end of construction activities. • Cesspits will be properly covered • Use well-maintained equipment to avoid leakage in the seawater • Latrines and cesspits will be located away from runoff zones and sea water • Follow same measures for soil and water contamination and waste measures above	• Contractors • Resident Engineer	

	Sewage and liquid pollution discharge to sea water and Risks on coastal and marine habitats and related biodiversity	• Establish a liquid waste management plan from all the landing site components and proper disposal at authorized areas by EPA and other relevant authorities. • Regular monitoring and inspection should be carried out on the temporary latrine. • Implement a strict penalty for bird hunting and collection • All chemicals and materials and waste are stored away from the sea. Chemicals must have spill prevention kits and spills removed straight away • Oil storage tanks/used oil must be stored/installed on insulated ground/concrete ground • Follow same measures above in water and soil contamination and waste sections • aware contractor and the implementation staff about the sensitivity of the marine environment and the importance of not pollute the sea and the suitable ways and places to dispose the liquid waste to its places. • Ensure regular maintenance by trained workers. • Ensure the generator room involve suitable concrete base and far away from water area. • Ensure all chemicals are stored, handled and disposed according to their materials safety data sheets by trained workers • Carry out regular biodiversity monitoring and inspection on the status of habitats (any organisms present in the area) via snorkeling or diving. This could be done in collaboration with the environmental protection agency (EPA) • Carry the construction work outside of biodiversity sensitive seasons (fish spawning seasons etc.) This could be done in collaboration with the environmental protection agency (EPA). • Confining the backfill in the identified edge area and the adjacent site to the landing centers without reaching the sea. •	• Community committee • Local Authority • Fish Association • Contractors • EPA	

	Hazardous materials/waste	• Ensure proper storage of hazardous materials and wastes. Any potentially hazardous materials or wastes will be stored, handled, and disposed of according to their Material Safety Data Sheets. • Ensure that hazardous wastes (i.e., oil containers, etc.) are properly stored and insulated away from drainage areas and runoffs, managed and disposed of safely and legally. • Ensure the presence of spill prevention kits if possible. • Ensure workers do not spend long exposure times to chemicals • Ensure hazardous wastes and materials are handled by trained workers	• Contractor • Resident Engineer	N.A
Operation and maintenance				
Operational and maintenance phase	Liquid discharge to sea water	• Establish a liquid waste management plan for all the landing site components and ensure perfect reflection in the intervention designs like for the selling yard, toilets, … etc. • Ensure proper disposal of wastewater and other types of wastes at authorized areas in coordination with EPA and other relevant authorities. • Regular maintenance and inspection should be carried out on the septic tank	• Community committee, • Local Authority • Fish Association	N.A

		• Fishing boats' engines, Vehicles, and equipment such as petrol pumps must be subjected to regular maintenance to avoid any leakage of hazardous liquids. • Collection of used oils in drums, to be sent to authorized collection and treatment facility. • Training of operators regarding proper management of used oils. • Ensure that site machine repair workshops have impermeable floors to confine pollutants. • Carry a spill-prevention kit. • Ensure the presence of spill prevention kits in case oil spills occur from machinery used. • Establish a liquid waste management plan for all the landing site components and ensure perfect reflection in the intervention designs like for the selling yard, toilets, … etc. • Ensure proper disposal of wastewater and other types of wastes at authorized areas in coordination with EPA and other relevant authorities. • Regular maintenance and inspection should be carried out on the septic tank • • Fishing boats' engines, Vehicles, and equipment such as petrol pumps must be subjected to regular maintenance to avoid any leakage of hazardous on concrete bases and regularly inspect the area for spills.		
	Solid waste disposal and solid waste produced by landing center operation.	• Insert solid waste management plan form all the landing site components and ensure perfect reflection in the intervention designs like for the selling yard, toilets, … etc. • Regular maintenance and inspection should be carried out. • Ensure providing special containers to dispose the solid waste and give awareness for the locals about its important. • Inform the public of maintenance times. • Aware fishermen about the sensitivity of the marine environment and the importance of not pollute the sea and	• Community committee, • Local Authority • Fish Association	

		the suitable ways and places to dispose the fish gears to its places. • Handing the sub-project to the respective local authorities. • All wastes that will be generated from the landing center operation and will be disposed of at an allocated waste disposal location by local authorities (Landfill). • Provide solid waste handling facilities (e.g., waste bins, skips, and dustbin cubicles). • Avoid incineration, uncontrolled burial or unsanctioned dumping of solid wastes (e.g., by providing suitable containers that are emptied regularly). • Implement separation of wastes at the source (e.g., through a site waste deposition and sorting area). • Regularly inspect the area for any spills and remove spills right away • Regular awareness sessions for fishermen on proper disposal of solid/plastic waste • Periodic site inspection and enforcement of penalties for improper waste disposal. • Collect existing waste and dispose in areas approved by local authorities.		
	Air Emissions	• Cleaning regularly the selling yard to avoid the bad odors. • Disposing regularly the organic waste • Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes. • Provide adequate protective wear for workers, and equipment must be maintained regularly to avoid any emissions. • Offer good practice awareness to fisheries to turn off boat's generators and electric generators when not in us. • Organizing the movement of trucks inside the drop-off center.	• Community committee, • Local Authority • Fish Association	N.A

		• Installation of solar lighting/backup system. • Staff and workers should switch off electrical equipment, appliances, and lights when not being used. • Spray the work area with sea water or greywater efficiently and regularly to reduce the dust. • Avoid working during dust storms and windy days. • Material loads must be suitably secured/covered during transportation to prevent the scattering of soil, sand, materials, or dust. • Exposed soil and material stockpiles must be protected against wind direction and the location of stockpiles shall take into consideration the prevailing wind direction. •		
	Biodiversity Conservation	• Proper management of fishermen by using eco-friendly fishing gear and specifying fishing season and managing the carrying capacity of the area. • Implement a fishing season away from the spawning season and sensitive fish seasons (this can be managed with fish authorities and EPA) • Raising awareness of fishermen about the importance of marine habitats and measures used for conservation of marine species including the negative impacts of overfishing. • Encourage the use of mooring anchorage instead of traditional anchors. • Ensure not disturbing turtles in case they reach the landing site shore and release any caught sea turtle right away. • Carry out regular biodiversity monitoring and inspection on the status of habitats (any organisms present in the area) via snorkeling or diving. This could be done in collaboration with the environmental protection agency (EPA). • Allow fishing in specific seasons outside of biodiversity sensitive seasons (fish spawning seasons etc.) This could be done in collaboration with the environmental protection agency (EPA) and fishing authority.	• GAF • Local Authority • Fish Association. • Community Committees	

		• Implement a strict penalty for bird hunting and collection • Avoid work outside bird sensitive seasons (breeding season). • Raise awareness on biodiversity conservation and no wildlife collection or hunting and apply penalties •		
	Lack of maintenance for subproject	• The GAF and fisheries associations are committed to maintaining the intervention. • Raise the awareness of the fishermen represented by local authorities and communities' committees. • Sign an agreement with local authorities and communities' committees to ensure subproject maintenance and sustainability of the project. • Inform the beneficiaries about maintenance period and times beforehand and ensure providing alternative sites during maintenance work. • Training a maintenance team from fisheries associations. • Regular maintenance and inspection should be carried out. • Ensure same but relevant mitigation measures from the previous sections will be applied during operation and maintenance activities.	• GAF • Local Authority • Fish Association. • Community Committees	
	Occurrence of conflicts between fishermen	• Activating the role of the community committee in resolving disputes between fishermen in cooperation with the Fishermen's Association • Raising the level of awareness among the users of the drop-off center on tolerance and non-violence.	• Fish Association. • Community Committees	
	Health risks. Accidents and safety risks.	• Landing site staff and users should be provided with an adequate supply of wholesome drinking water which should be maintained at suitable and accessible points. • Suitable, efficient, clean, and adequate sanitary conveniences should be provided for construction workers. • Ensure that the hygiene, safety, and protection rules of the environment are followed rigorously.	• GAF • Local Authority • Fish Association. • Community Committees	

		• Emergency response plan that provides measures to deal with emergencies and accidents. • Protective equipment should be made available on site. • First Aid tools should be available. • Fire distinguishers should be made available. • Ensure the general safety and security at all times by providing day and night security guards and adequate lighting within and around the landing site.		
	The depletion of fish stocks	• Using sustainable yield levels to establish total permissible harvest limits for major fish species. • limiting the use of certain damaging fishing gear after consulting within coordination with local Environmental Protection Agency (EPA). • Designating specific regions as marine protected zones where fishing is prohibited. • Individual quotas for fishermen depending on catch limitations in coordination with EPA. • Restricting certain forms of fishing at specified periods of the year to protect spawning fish and youngsters in coordination with local Environmental Protection Agency (EPA). • Proper management of fishermen by using eco-friendly fishing gear and specifying fishing season and managing the carrying capacity of the area. • Implement a fishing season away from the spawning season and sensitive fish seasons (this can be managed with fish authorities and EPA) • Raising awareness of fishermen about the importance of marine habitats and measures used for conservation of marine species including the negative impacts of overfishing. • Encourage the use of mooring anchorage instead of traditional anchors.	• Community committee, • Local Authority • Fish Association	NA

		• Ensure not disturbing turtles that reach the landing site shore and release any caught sea turtle right away. • Carry out regular biodiversity monitoring and inspection on the status of habitats (seaweed, and other organisms present in the area) via snorkeling or diving. This could be done in collaboration with the environmental protection agency (EPA). • Allow fishing in specific seasons outside of biodiversity sensitive seasons (fish spawning seasons etc.) This could be done in collaboration with the environmental protection agency (EPA) and fishing authority. • In the broader context, the UNDP is engaged in other major subcomponents in this project to address fish stock management. These subcomponents are identifying and addressing institutional gaps in order to build the national institutional capacity for sustainable fisheries management.		
	General occupational health and safety procedures for workers during operation, handling fish waste, biohazards, and poor hygienic practices	• Require appropriate personal protective equipment (PPE) like cut-resistant gloves, goggles, aprons, and dust masks. Enforce proper use of PPE at all times. • Provide hand washing stations and hand sanitizers for workers. • Employees in hazardous facilities should be trained in accident prevention, first aid, emergency response, and reporting protocols. • Use mechanical lifting aids and trolleys to reduce manual handling of heavy objects. • Raise awareness on good hygienic practices • Ensure presence of fire signs with details on how to use extinguishers • Train facility workers on using fire extinguishers and how to react in case of fire. • The number of firefighting units must be present on the signs • Implementing proper procedures for collection, storage and disposal of fish waste and other biohazardous waste.	• Community committee, • Local Authority • Fish Association	

		• Ensure adequate wastewater treatment and solid waste management • Ensure non-slip flooring and walkways in processing areas • Store and label fish waste at designated zones • Regularly dispose fish waste/biohazards according to the local authority by certified local contractor • No biohazards to be disposed in the sea • Ensure workers maintain proper hygiene and cleaning of the site area and raise awareness of proper hygiene and housekeeping measures		
	Air Emissions from organic waste and power generations (when installed and used)	• Ensure that the generator is placed in a well-ventilated area and on concrete base, to disperse the gaseous emissions and reduces the concentration of fumes around the generator in case it is installed and used. • Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes. • Cleaning regularly the selling yard to avoid the bad odors • Disposing regularly of the organic waste	• GAF • Community committee, • Local Authority • Fish Association	

5.2 Occupational and Health Safety Plan:

Table 8 Occupational and Health Safety Plan

Tasks with risk possibilities	**Hazard**	**Risk degree**			**Risk mitigation measures**	**Risk degree after**			**Responsible**	**Estimated Cost**
		H	**M**	**L**		**H**	**M**	**L**		

General Requirements (OHS general actions for all activities of the sub-project)	• (General): Conduct comprehensive training about occupational and health safety (OHS) aspects before the beginning of the sub-projects implementation by PWP. This includes (hazards associated with the activities., how to use tools properly mitigation measures, and workers' responsibility as well as the disciplinary action against any violation. • (General): Weekly repeated awareness sessions on OHS hazards associated with the activities, mitigation measures, and workers' responsibility as well as the disciplinary action against any violation. • (General): Workers sign that they have received awareness about the implementation of the activity, and that they understood the special procedures that help mitigate, minimize and avoid potential risks. • Conduct daily toolbox talks for workers. • Integrate the OHS measures in the activities' detailed implementation plans (DIPs) to ensure the implementation of OHS measures on time. • Activation of the Permit to Work (PTW)22 system for the activities of the moderate and high risk. • Ensure the right authorization procedures are in place for the permit to work in the worksites. • (General): Ensure maintain occupational health and safety system in the site to protect workers from hazards and risks. • (General): Workers sign that they have received awareness about the implementation of the activity, and that they understood risk assessment that help mitigate, minimize and avoid potential risks. • (General): Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free. • (General): Involving the community committee in the monitoring of safety procedures and reporting any risks. • (General): Emergency response plan to be in place with details of the nearest hospital or medical center, responsibilities are understood for all works, first aid boxes are available and a list of trained first aiders is posted and known by all workers. • Ensure effective monitoring to the worksites including inspections and spot checks to ascertain compliance with OHS measures. • (General): in case activities at height take place, provide safety ropes for workers and fall protection devices. • Conduct regular inspections for any unsafe acts, near misses, or accidents. • Discover the root causes of any non-compliance cases or/and accidents occurring and suggest the corrective actions to avoid reoccurring. • Provide training on handling, storing and disposing cement and any type of chemicals. • Wear high rubber boots to protect from snake bites. • Ensure no work is conducted during bad weather conditions (i.e., sandstorm, dust storm, rainy seasons etc.) • In case ladders are used, inspect their stability prior standing on them • In case scaffold are used, inspect their stability and well insulted by competent person prior using it.	• Contractor • Resident Engineer • Workers	provide safety equipment for workers 23,500$ from the intervention cost

[22] A work permit is a permit that gives the contractor approval to begin carrying out the activity specified in the permit after reviewing the risks and control procedures for this activity.

	• Ensure workers are trained on handling, storing and disposing chemicals including cement and are aware of its health hazards. Additionally, ensure that workers handle and store and dispose chemicals and cement according to its MSDS. • Aware workers on the risks and hazards of sea water, enabling them to identify and avoid dangerous weather conditions and unsafe waterbodies. • Adequate supervision to prevent swimming and provide a trained lifesaver. • Provide life and health insurance to all project workers. • Allows regular breaks and provide drinking water for workers. • Ensure providing latrines equipped with soap and water and resting areas for workers. • Report major accidents to the WBG within 48 hours by UNDP. • No work at night will be allowed									
Excavation and Backfill Works	• Workers fall from the edge of the 'excavated sites. • Excavation sides get demolished or soil slides during excavation or excavation residues slide on the worker during excavation. • Dust, sand and small parts volatilize while excavating in sandy soil. • Limb injury while using drilling and excavation equipment. • Exposure to hot sun during drilling causes headaches • Misuse of equipment necessary for excavation or removal of waste and the like. • Serious accidents due to work in proximity of heavy equipment in the workplaces such as Graders, Compactors, trucks…etc.		x		• Site preparation and proper organization of the stacked material in order to ensure the safety of workers during work • Install warning signs, barricading of working area with safety tapes and fencing to prevent unauthorized access of public and pedestrians to openings, excavation, and backfilling work areas in particular and the work sites in general. • Conduct inclined excavation if the soil is collapsible or saturated with water. Also, the sides of the excavation shall be supported with timbering work if required. • Use appropriate equipment for levelling and excavation and pay extra attention while using mechanical excavators. • Removal of falling blocks objects or sliding soil in any area above the level of excavation in and around the pit. • Ensure collection and transportation of the excavation residues to the designated landfills right away. • Safety gloves, dust masks, protective helmets, protective boots and all			x	• Contractor / Resident Engineer / Workers	Part of PPEs cost first item

	• Limb injury while using drilling and excavation equipment. • Exhaustion and injuries from excavation activities				necessary PPE to mitigate the risks of conducting the activity are to be used by workers at all time on-site. • Deposit soil extracted 0.80 meter away from the edges. • Maintenance of all work equipment before starting the work such as digging tools, drilling, Graders, Compactors, trucks…etc. • Ensure skilled workers are hired for this activity. • Allow for regular breaks and provide water • Workers have the option to remove themselves from unsafe working conditions without any reprisals. • Ensure that excavation workers understand special procedures that help avoid and mitigate potential risks. • Wear ear mufflers for noisy activities • Limit the use of continuous equipment for individual workers that generate noise and vibrations. • Do not use tools with obvious signs of damage • Check weather forecast prior to starting any work and avoid working during bad weather conditions, (e.g dust storm, heat waves, rainy periods etc.) • Provide guards at excavation areas to prevent local communities from accessing excavation • Inspect ladders and scaffolds before using them. • Ensure adding signs and barriers around excavated areas to prevent workers from falling					

					• Daily maintenance for the excavation fence to ensure it is fixed. • Ensure good housekeeping and site arrangement practices are followed • Removed all objectives, equipment, materials, and sliding soil from the areas surrounding excavations and at least 3 m from the edge to avoid falling into the excavation. • Periodic inspection to ensure that mitigation measures are implemented and stop any unsafe act or unsafe situation. • Add barriers and signs around the 3m deep well to avoid falling inside them					
Mixing the concrete materials.	• Serious injuries due to contact with cement mixture equipment when it is working. • Blisters on the hands due to the cement component impact during the mixing and direct contact with liquid cement. • The bad handling with cement mixing causing eye irritation.		x		• Use of professional labor force to implement activities that are obligatory while mixing and pouring concrete. • Use safety gloves while loading, transporting, and distributing stones while building. • Long, rubber safety boots, goggles and gloves shall be worn while mixing concrete. • The use of the professional workforce to carry out mandatory activities while mixing and pouring concrete. • Wearing long, rubber safety boots are obligatory while mixing and pouring concrete. • Ensure concrete mixture equipment is in good condition. • Workers to be aware of concrete mixture equipment risk and keep a safe distance during its movement and rotation.			x	• Contractor/ Resident Engineer	Part of PPEs cost first item

					• Locate the cement mixer equipment on firm-level ground to avoid collapse during operation and locate it away from traffic.					
Construction of rooms walls, plastering, painting, and floor pouring and tiling.	• Falling from height. • Injury or severe fractures caused by falling. • Blisters on the hands due to direct contact with cement. • Chemical inhalation. • Injury of the worker's head or construction while transporting stones. • Foot injuries while mixing concrete. • Eye Injuries while applying plastering scratch or base coat. • Injuries of the shoulders and back muscles because of lifting the wrong way or lifting heavy load for long, far distances between the worker and construction. • Injuries in hands and feet due to using of hand tools like hammers, and chisels. • Misuse of equipment during plumbing work.		x		• Ensure that the stairs or scaffolding are stable and set up on the leveled ground and must be affixed to any stable body with no movement. • The used scaffold shall be in excellent condition in addition to ensuring the quality of the shuttering works and scaffolds supported by the supervising engineer. • Inspect ladders before usage • Wear fall protection devices and helmets • Use a safety harness working at height. • Use safety gloves while loading, transporting, and distributing stones • Long, rubber safety boots and gloves shall be worn while mixing concrete. • Eye protection must be worn to protect the eyes from volatile cement while applying plastering scratch or base coat or braking and forming stones as well as use safety gloves while mixing concrete.			x	• Contractor/ Resident Engineer	Part of PPEs cost first item

Installation of pipes lines and plumbing works	• Risk due to excavation works for pipes lines. • Injuries during the pipe's connection works. • Misuse of equipment during plumping work. • Traffic Accidents. • Vehicles running into workers (pipeline area)		x		• Hire skilled labor to implement these activities. • Follow the mitigation measures for excavation risks mentioned above in the excavation risk part. • Coordinate with local councils, beneficiary committee before excavation of water supply pipelines. • Install traffic signs to reduce speed and alternative roads, as well as install the warning signs for the work area. • Ensure a flagman is present to warn vehicles of work area and to arrange traffic on site.			X	• Contractor/ Resident Engineer	Part of PPEs cost first item
Working at heights	• Injury/death - inadequate ladder; inadequate use of ladder; failure to wear fall arrest gears; inadequate scaffold erection; inadequate safe work procedure • Fall of tools, equipment or materials from above and strike workers below • Struck of workers by falling objects or moving parts of equipment when working at height. • Risk of electric shock from power lines, electrical cords and equipment when working at height.	x			• Use safe scaffolding for working at height and ensure it is according to safety standards and specifications. And guardrails are implemented on scaffolds • Check the scaffolding specification before using it and ensure it is according to international safety standards. • Inspect ladders before usage and ensure they are properly fixed • Wear fall protection devices and helmets • Daily check for scaffolding before starting the work at heights to ensure the working platforms with guard- rails, fence, toe-boards are according to safe specifications standard. • Ensure the scaffolding is erected to fixed buildings and on safe ground. • Using of scaffolds sufficient large to allow safe use and movement and ensure there is sufficient bracing into			x	• Contractor / Resident Engineer /Workers	Part of PPEs cost first item

	• Failure of ladders, scaffolds or other access equipment. • Overextend or lose their balance of workers when reaching or working from ladders, platforms, etc. • Working at height during adverse weather • Working on uneven, sloped or fragile surfaces at height • Collide workers with other persons, objects or equipment when working at height.				scaffolds. • Determine the allowed loads for use on the platforms to prevent its collapse. • Erecting scaffolds by competent workers. • Inspect the scaffolds before starting the work. • Issue special permit to work for scaffolds to ensure it is safe to use. • Ensure that the stairs or scaffolding are stable and set up on the levelled ground and must be affixed to any stable body with no movement. • Use safety harnesses by workers during working at height. • Do not stand under ladders or lifting areas • Ensure cautious supervision of the workers during working at height. • Use safety gloves while loading, transporting, and distributing stones while building. • Long, rubber safety boots shall be worn while touching the concrete. • Eye protection must be worn to protect the eyes from volatile cement while applying plastering scratch or base coat or braking and forming stones. as well as use safety gloves while mixing concrete. • Wearing isolation boots and gloves are obligatory while using the electrical tools. • Overalls, eye protection, and face visors are provided for workers who work on welding or cutting. • Ensure ladders are stable and provide					

					fall prevention devices.					
Dealing with hazardous material and waste	• Skin and eye irritation and allergies from hazardous material such as wet cement.		X		• Store, handle and dipose hazardous material and waste according to their MSDSs • Hazardous materials and wastes should be handled by trained workers. • Workers should be provided with proper PPEs • Using local exhaust ventilation systems or open windows/doors to ensure good airflow and reduce inhalation of paint fumes • For tasks with higher chemical exposures, limit the work duration and rotate workers to reduce total exposure. • Keep tools and equipment, and their safety features, in good working order. This can be achieved by routine inspection of working equipment. • Select paints with lower VOC content- Use water-based paints instead of solvent-based varieties where possible. • Ensure adequate storage and labeling of chemicals items according to safety data sheets helps reduce accidental exposures. • Safety goggles help protect eyes against splashes or airborne chemical particles that can cause irritation. • Presence of Hand washing and showering after chemical works can remove residual chemicals and reduce			x	• Contractor / Resident Engineer /Workers	Part of PPEs cost first item

					dermal absorption. • Consider alternative products where possible that do not contain harmful chemicals like aromatic hydrocarbons and lead. • Alternative products where possible that do not contain harmful chemicals like aromatic hydrocarbons and lead. • Train workers on chemical hazards, exposure symptoms, and safe work practices to minimize chemical absorption and inhalation. • Use drops cloths, masking tape, plastic sheets and other coverings to protect floors, walls, furniture and equipment from chemical splashes and overspray. • Clean up spills immediately • Restrict access to the painting, and insulation areas to only the workers actively involved in the job.					
Cutting, and transferring of stones	• Eyes get injured while cutting stones. • Hand Injuries. • Foot injuries • Stones fall on workers while cutting, transporting, or loading. • Workers fall while standing on stones to cut or walk on them. • Car accidents occur against workers while transporting materials. • Stones falling on pedestrians or people passing by. • Improper use of equipment		X		• Issuance of special permits by the resident supervising engineer to carry out the work. • The use of Personal Protection Equipment (PPE) during the work of cutting and breaking stones is obligatory. Ensure that all necessary protection measures are properly considered. • Inspect quarries before entering • Raise awareness among workers on safe cutting techniques • Use safety gloves while loading, transporting, and distributing stones. • Wearing appropriate safety boots is obligatory during the activity implementation.			x	• Contractor/ Resident Engineer	Part of PPEs cost first item

	while cutting stones. • Use of explosives to cut or drill on stones or rocky areas. • Stone splinters resulting from cutting stones cause damage to the worker's body. • Hearing injury.				• Safety eyewear must be on to protect the eyes from stone splinters during the breaking and cutting of stones. • Full precautions should be taken into consideration during cutting stones from high elevations. • Use ear plugs to protect the ears from the noise made by the mechanical excavators and cutters in addition to wearing a dust mask to protect from volatile dust. • Use safe and appropriate equipment for cutting and forming of stones, with continuous maintenance. • Store and organize stones in the work area so as not to block the pathways, or cause danger to pedestrians and workers. • Use of explosives is forbidden, and only safe excavation equipment to be used.					
Implementing of Sanitation works, Work in closed or confined spaces (Water Tank or Septic Tank)	• Hands or feet get injured while excavating work. • Dust, sand, and small parts volatilize while excavating in soil. • Breathe the plastic dust emitted from UPVC pipe pieces. • Injuries due to lack of oxygen or toxic gases • Variation in temperature (cold, hot) • Trapping risks inside these places.		x		• A permit must be cut issued entering any closed area from the site official to review the safety equipment before starting work in anticipation of any emergency. • Issuance of work permits by the resident engineer to carry out the work. • Workers sign that they have received awareness about the implementation of the activity and that they understood the special procedures that help mitigate, minimize and avoid potential risks.			x	Contractor/ Resident Engineer / Workers	Part of PPEs first item

					• A proper supervision to ensure OHS measures are in place and access control logbook to record all trained workers working in the confined areas including register of workers names, Location, and working shift, maximum shift time, start time and finish time of entry to the confined areas to ensure safety of workers. • A proper ventilation for confined areas prior allowing any work and gas test to be conducted prior work shift to ensure the areas are free from any toxic and harmful gasses. • Specific PPEs suitable to the type of activity, including provision of self-contained breathing apparatus (SCBA) with oxygen tanks to workers when working inside areas where there is insufficient oxygen with proper training on how to use them properly. • Hire skilled labor to implement these activities. • A suitable lighting shall be provided inside the confined areas during work hours. • Use protective masks while cutting pipes. • Ensure the necessary personal protective equipment (PPE) is provided for excavation workers. • Install temporary fencing around the excavations to prevent falling. • Ensure activity is done by skilled workers. • Ensure no work is conducted during bad weather conditions (i.e., sandstorms,					

					dust storms, rainy seasons etc.) • Ensure limited time spent in confined areas. • Leave the place immediately in the event of an emergency**.** • Do not use any smoke generators or sources in enclosed spaces. • The presence of an observer outside the closed place permanently during work in anticipation of any emergency situation. • Inspect the tool before use. • Do not use tools with obvious signs of damage. • Maintain the excavation equipment before starting the work to ensure it is in good condition and safe to work. • Provide devices for measuring and detecting gases • Providing air supply equipment by pumping air into closed spaces or places where toxic gases are present • Ensure presence of extra oxygen tanks • Provide full-body harness and lifelines and gas detectors when working in the confined spaces (Sewer manholes) or canals; • Ensure no worker spends too much time in confined areas • Ensure all workers in manholes or confined areas are attached with safety ropes to be pulled away in case of emergency. • Make sure that a person is assigned to monitor the safety of all activities of access to confined places.					

					• Conduct inspection on gas levels in manholes before entering and ensure they are within safety limits prior entry • Ensure the presence of shower areas with disinfectants • Ensure workers in manholes take shower after finishing their work. • Ensure sewage overalls and PPEs are properly washed and disposed according to national regulations • Proper(Tetanus, Typhoid) vaccines are given to workers who are working in manholes • Report immediately any accident or injury occurring during the execution of the work and within a maximum period of 24 hours to UNDP and within 48 hours to the WBG. • Ensure all workers in confined areas know the risks and adhere to safety measures • Inspect all PPEs prior usage • A permit must be cut before entering any enclosed area from the site official to review the safety equipment before starting work in anticipation of any emergency. • A proper supervision to ensure OHS measures are in place and access control logbook to record all trained workers working in the confined areas including register of workers names, Location, and working shift, maximum shift time, start time and finish time of entry to the confined areas to ensure					

					safety of workers. • All workers in confined are					
Reinforcement Concrete works include reinforcement steel bars installation and concrete pouring (columns, beams, slabs),	• Workers fall from height (more than two-meter) which may lead to death or serious injuries. • Injuries or serious fractures as a result of reinforcement steel bars placing and concrete pouring. • Various typical injuries to the hands during shuttering work and reinforcement steel bars placing. • Falling materials from high surfaces on the workers or pedestrians may cause death or serious injuries. • Collapsing of working scaffolding, platforms, concrete formwork on the workers or pedestrians may cause death or serious injuries. • injuries due using of cutting equipment. • Injuries in hands and feet due to using of hand tools like hammers, and chisels.		x		• Use safe scaffolding for working at height and ensure it is according to safety standards and specifications <u>And guardrails are implemented on scaffolds</u> • Check the scaffolding specification before using it and ensure it is in accordance with international safety standards. • Do daily check for scaffolding before starting the work at heights to ensure the working platforms with guard- rails, fence, toe-boards are properly installed in accordance with safe specifications standards. • Ensure the scaffolding is erected to fixed buildings and on safe ground. • Using of scaffolds sufficiently large to allow safe use and movement and ensure there is sufficient bracing into scaffolds. • Check the platforms big enough to allow safe use of equipment and materials, safe passage, clean and tidy. • Determine the allowed loads for use on the platforms to prevent its collapse. • Erect scaffolds by competent workers. • Inspect the scaffolds before starting work.			x	• Contractor/ Resident Engineer	Part of PPEs first item

					• Issue special permit to work for scaffolds to ensure it is safe to use. • Ensure that the stairs or scaffolding are stable and set up on the leveled ground and must be affixed to any stable body with no movement. • Use safety harnesses by workers during working at height. • Ensure cautious supervision of the workers during working at height. • Use safety gloves while loading, transporting, and distributing stones • Long, rubber safety boots shall be worn while touching the concrete. • Eye protection must be worn to protect the eyes from volatile cement while applying plastering scratch or base coat or braking and forming stones as well as use safety gloves while mixing concrete. • Wearing isolation boots and gloves are obligatory while using electrical tools. • Overalls, eye protection, and face visors are provided for workers who work on cutting. • Wearing high visibility clothing in the worksite. • The use of the professional workforce to carry out mandatory activities while mixing and pouring concrete. • Maintenance of all work equipment before starting the work such as Cement mixture. • Always keep safe distance with work equipment including Cement mixture. • Use wind gloves while loading, transporting, and distributing sharp materials like steel bars during					

					implement reinforced concrete beams. • Ensure that concrete mixing equipment is in good condition. • Workers are aware of the dangers of concrete mixing equipment and maintaining a safe distance during its movement and rotation. • <u>Do not stand under ladders or lifting areas</u>					
Implement and install electrical works.	• Occupational accidents and incidents caused by electrical work. • Injuries during electrical foundation works. • Injuries from electrical shocks. • Injuries because of stumbling by random power wires. • Electric shock and burns from contact with live parts. • Injury from exposure to arcing, fire from faulty electrical equipment or installations.	X			• Take all safety precautions to address hazards for workers and visitors and the nearby community including safety/warning signage, and safety barriers around the work sites. • Train workers regarding avoiding and responding to electric shocks. • Provide fully insulated installation tools, instruments, and equipment. • Identify buried electrical cable prior the activity. • Hire skilled labour to implement these activities. • Issuance of work permits by the resident supervising engineer to carry out the work • Ensure adhering to electricity resistant PPEs. • Do not work during wet seasons • Only work at dry areas • No loose connections are not allowed to avoid fire and other disasters. • Power to be cut-off while not working. • Properly cables (armoured cables) without any joint to be used for electric supply. • Cables and wiring should be outdoor and indoor specified for each site.			**X**	• Contractor • Resident Engineer • Workers	Part of PPEs first item

					• Provide fire extinguishers suitable for use in electrical fires. • Ensure skilled workers are hired for these activities. • Periodic inspection to ensure that mitigation measures are implemented and stop any unsafe act or unsafe situation. • Isolate and de-energize electrical sources before working on them • Working in a well-lit area will help to prevent falls and make it easier to see potential hazards. • Keeping electrical equipment in good working order • Worksites should be inspected for hazards on a regular basis. • Regularly inspect fire extinguishers • Only qualified workers should be allowed to work with electrical equipment. • ensuring power circuits are protected by the appropriate rated fuse or circuit breaker to prevent overloading					
Paving sidewalks Activities including (Excavations, Levelling, Paving the tiles)	• Dust, sand, and small parts volatilize while excavating in sandy soil. • A limb is injured while using drilling and excavation equipment. • Exposure to the hot sun during works causes headaches and psychological and neurological disorders • Misuse of equipment necessary for excavation,		**X**		• Site preparation and proper organization of the stacked material to ensure the safety of workers during work • Install warning signs, barricading of working area with safety tapes and fencing to prevent unauthorized access of public and pedestrians to work areas in particular, and the worksites in general. • Use appropriate equipment for levelling and excavation and pay extra attention while using mechanical excavators.			**x**	• Contractor • Resident Engineer • Workers	Part of PPEs first item

	pouring concrete, or removal of waste and the like. • Workers' ignorance of safety hazards at the work site. • Stones fall on workers while shaping, transporting, or loading • Workers fall while standing on stones. • Injuries of the shoulders and back muscles because of wrong lifting heavy loads for long distances. • Serious accidents due to work in proximity of heavy equipment in the workplaces such as Cement mixture, Graders, Compactors, trucks…etc • Injuries or skin cracks due to contact with cement mixing equipment while working. • Injuries or serious fractures as a result of workers falling during the work of shutters, reinforcement steel bars placing, and concrete pouring. • cars and vehicles running into workers				• Safety gloves, dust masks, protective helmets, protective boots, and all necessary PPE to mitigate the risks of conducting the activity are to be used by workers at all times on-site. • Allow for regular breaks and provide water • Use of explosives is forbidden in any of project activities. This is clearly communicated to all communities. • Provide the worksites with guards 24 hours to stop an unauthorized entrance to the work sites. • Maintain the equipment before starting the work to ensure it is in good condition and safe to work. • Collecting and transporting the residues to the designated landfills allocated by local authorities. • Ensure skilled workers are hired for this activity • Assign banksman to arrange the vehicle's movement. • Always keep a safe distance with work equipment including Cement mixture, Graders, Compactors, trucks…etc. • Wearing high visibility clothing in the worksite. • Conduct additional inspection for civil works before starting the work to observe the worksite, ensure the safety procedures in place, and approved the permit to work. • Long rubber safety shoes, piles should be worn while mixing concrete on site, and store cement according to its MSDS by trained workers					

					• Workers are aware of the dangers of concrete mixing equipment and maintaining a safe distance during its movement and rotation. • Alert local communities about activates risks •					
Risk of Lifting Activity	• Hazards related to the loads, e.g. crushing due to impact of moving objects or loads falling because they are not aligned properly or the wrong type of slings were used • Hazards from cranes falling over because of improper fixation or strong wind, unsafe loads, loads exceeding the safe weight limits, trapping/crushing risk while working at height, falling from height. • Hazards related to poor environment that may interfere with communication between workers or concentration needed for the task (noise) or cause sweaty, slippery objects (heat, poor ventilation) • Risk of High wind speed, Poor communication and poor visibility	X			• Close the lifting area with fence to prevent access to the lifting area during lifting work; • Install warning Signs in lifting activities site; • Carry out lifting work by well trained, qualified, and certified lifting team; and provided means of communication and flagman; • Use well-maintained equipment for lifting that are appropriate for the weight; well checked and tested by a third party; • Secure loads when lifting and use strong and reliable fixation materials to make sure that the load is well tighten and no solid parts falls from the load during lifting; • Protect the units against staining, discoloration and other damage until they are installed in their final location. • Lifting device capacity shall be 1.65 times the maximum calculated static load at that point. • Ensure to coordinate with local authority on areas with electricity grids/networks and cables in order to avoid electrical shocks • Prohibit working during rainy periods			**X**	• Contractor/ Resident Engineer /Workers	Part of PPEs first item

					• Ensure a proper buffer distance between workers and lifting areas is kept • All workers are wearing head helmets and safety boots • Ensure a supervisor/flagman is present for site movement and arrangements • <u>Add a buffer zone around lifting areas and ensure no worker stands below lifting zone and wear head helmets</u>					
Manual Handling	• Risk of heavy, Bulky, or unwieldy load • Risk of Unstable/ unpredictable loads • Risk of PPE clothing hindering the movement or posture • Risk of poor communication on safety between workers • Risk of workers' back injuries due to wrong manual handling.		**x**		• Avoid the need for unnecessary manual handling as possible when suitable equipment is present. • Raise awareness to workers on safe lifting techniques to avoid injuries • Reduce the load risk by using lighter weights or more stable containers. • Reorganize the activity to further reduce the impact on the individual(s). • Utilize mechanical lifting aids or equipment as appropriate. • Ensure appropriate rest breaks, job rotation, and training are involved. • Raise awareness to workers on safe lifting techniques to avoid back injuries • Provide personal protective equipment (e.g., gloves, foot protection, and non-slip footwear). • Ensure trained workers are dealing with cement and wearing proper PPEs including gloves, googles and masks • Provide training for workers on handling and storing any hazardous substances and materials if any. • The use of the professional workforce to carry out mandatory activities while mixing and pouring concrete. • Maintenance of all work equipment			**x**	• Contractor • Resident Engineer • Workers	Part of PPEs first item

					before starting the work such as Cement mixture. • Always keep safe distance with work equipment including Cement mixture. • Long rubber safety shoes and piles and gloves, masks and googles should be worn while mixing concrete on site. • Workers are aware of the dangers of concrete mixing equipment and maintaining a safe distance during its movement and rotation. • Provide awareness sessions to workers on how to perform their tasks to avoid injuries • Avoid carrying unstable, unbalanced or oversized loads that could fall from the forklift or other lifting equipment. • Ensure that all forklift operators or other lift operators are properly trained. • Establishing designated traffic routes for forklifts • Maintain safe distance from cement mixer					
Drowning	• Drowning risks		**x**		• Raising awareness among workers about the dangers of approaching the sea and its surroundings • Installing a fence around the work area • Ensuring that a person is appointed responsible for safety • Ensuring that there is an emergency rescue plan			**x**	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

Transport of equipment and materials	• Transporting equipment and waste to and from the site and risks of road accidents • People or workers struck by moving vehicles. • Falling workers from vehicles during moving. • Falling vehicles into excavations.		**x**		• Stop the movement of vehicles on the worksite during bad weather conditions to avoid collisions. • Ensure drivers have valid driving licenses. • Emphasis on safety aspects among drivers. • Ensure workers are wearing high visibility clothes • Inform drivers of the local speed limit, safety measures (e.g., wearing seat belts, respecting road regulations), and monitor implementation. • Provide traffic signs in the worksite, especially for speed limits, route directions, parking places, entrances and exits, walkways, and worksite warning signs. • Daily inspection and maintenance of vehicles by the contractor to ensure they are in good condition prior to starting work. • Arrangement and control of the worksite entrances and exits, and prevent unauthorized persons or vehicles from entering the worksite. • Presence of a flagman for worksite arrangement and movement. • Provide vehicles and equipment in the worksite with audible reversing alarms and flashing beacons. • Carry a drug test for drivers. • Prohibit workers from climbing on vehicles while they are moving to avoid falls. • Ensure a flagman is present on-site to guide vehicle movements and prevent vehicles from getting too close to excavation edges. • Avoiding or minimizing transportation through night hours.			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

					• Add barriers around work area •					
Poor coordination, planning	• Hands or feet get injured while excavating or constructing works. • Dust, sand, and small parts volatilize while excavating or building works. • Injuries to the shoulders and back muscles because of lifting the wrong way or lifting heavy loads for long. • Risk of rain flood.		**x**		• Conduct awareness sessions about (OHS) occupational and health safety includes (hazards associated with the activity, mitigation measures, and worker's responsibility as well as disciplinary action against any violation. • Regular breaks to workers and provision of clean water to workers • Workers sign that they have received awareness about the implementation of the activity, and that they understood the special procedures that help mitigate, minimize and avoid potential risks. • Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free. • Ensure workers are aware of electric hazards from electric poles. • Ensure no work is conducted during rainy periods and near stagnant water areas • Coordinate with local authority regarding the presence of electrical poles and cables near the work area to avoid electrical shocks. •			**x**	• Contractor • Resident Engineer	Part of PPEs first item

Working at Night	• Poor or insufficient light at project site increase chances of accidents • Pushing female to work at night which may lead to increased social risk or conflict in their families etc.		X		• Use of permit to work for working at night. • No more than 6 hours of work per day are allowed during Ramadan as per the legislation and LMP. • Work hours are limited to the approved 6 hours per day that can be done in one shift at night or divided into two shifts (day and night times) 3 hours each for each shift. • Workers are voluntarily agreed to work at night. • Ensure proper lights with adequate distribution are installed at project site. • Ensure work site is properly secured and in/out is fully controlled. • Ensure activities conducted at night are not high risk.Provide head lights to all workers at project site. • Install reflective /Florescent signs around the work areas. • Ensure proper PPEs are provided for workers, including reflective vests, etc. • Ensure supervisors are available at all times. • No alone worker is allowed at night. • Ensure GM system is place and awareness is given to all workers and they sign the code of conduct. . • Raise awareness on risks of working at night with all workers. • Ensure Emergency Response Plan is in place. • Ensure Communication means are in place. • No female worker is permitted to work at night at any outdoor interventions.			X	• Resident technical Engineer/ • • Contractor	Part of PPEs first item

					• Female is encouraged to participate at household interventions when possible. • Raise awareness towards Gender, SEA/SH					
Planting native non-invasive trees[23]	•Tree planting OHS risks from injuries, blisters and other injuries while planting trees		**x**		• Provision of dust masks to workers • Workers to wear protective gear i.e. safety boots, safety helmets, reflector jacket,,googles, gloves etc • Train workers on safe tree planting techniques and safety measures • Use organic fertilizers such as green manure			**x**	• Resident technical Engineer/ Contractor	Part of PPEs first item
movement of equipment and vehicles at the project site	• People or workers struck by moving vehicles. • Likely traffic accidents (collision) between moving vehicles. • Falling workers from vehicles during moving. • Falling vehicles into excavations. • Vehicles running into workers. • Vehicles running into workers due to non-compliance or lack of a traffic management plan in the work site.		**x**		• Emphasis on safety aspects among drivers. • inform drivers on the local speed limit and monitor implementation. • Control and manage traffic, by using traffic cones, barriers, fences, or lights as appropriate. • Daily inspection and maintenance for the vehicles by the contractor to ensure they are in good condition prior to starting the work. • Provide traffic signs in the worksite, especially for speed limits, routes directions, parking places, entrance and exits, pedestrians' walkways, and worksite warnings signs. • Warning signs for vehicles should be added and a flagman should be present on site at a safe distance from work site			x	• Contractor • Resident Engineer Workers	Part of PPEs cost first item

[23] Planting works are present through all PWP projects due to their positive environmental and aesthetic role, provide canopy, as well as it is role in combat greenhouse emissions.

					to warn drivers to slow down prior to reaching the work area. • Stop the movement of vehicles in worksite in bad weather conditions to avoid collision. Provide the worksite with barriers in the road edges to protect workers and vehicles from falling. • Ensure a presence of a flagman for work site arrangement and vehicle movements control • Require speed limits and backup alarms on vehicles • Wear seat belts • Arrangement and control of the worksite entrance and exits, and not allow for unauthorized person or vehicles enter the worksite. • Coordinate with local authorities and communities to provide alternatives road for road users during closing the worksite. Provide the vehicles in the worksite with audible reversing alarms and flashing beacons. • Prohibit workers to climb on the vehicles during moving to avoid falling. •					
Operation and Maintenance: Working in unhealthy areas	• injuries to the workers of fish cutting and preparing from cutting tools such as knives. • Outbreaks of infectious disease such as diarrheal diseases and their consequences as cholera and dysentery, in addition to intestinal parasites among fishermen, vendors and other		**x**		• Landing centre Administration to issue a list of instructions for workers in the fish preparing department that includes occupational safety measures while dealing with cutting and processing fish. • Ensure adherence to occupational safety instructions by fish-preparing workers. • Use sound and good tools while working in fish processing			**x**	Fish Association Fish Authority/ • community committee/ Landing centre Administration / Fish worker	Part of PPEs first item

	workers are common in such conditions. • unhygienic conditions and poor sanitation are prevailed. • risk from drowning and fishing during bad weather and sea storms seasons.				• Use personal safety tools such as gloves, etc. • Awareness programs should focus on providing the trainee with knowledge that illustrate the benefits of proper fish handling and its impact on health and economy. • Other programs could also help fishermen to acquire and build necessary skills and good practices to raise quality and reduce manifestations of fish spoilage according to scientific and health standards with high efficiency. • Awareness sessions to fishermen on the risks and hazards of water, enabling them to identify and avoid dangerous weather conditions and unsafe waterbodies. • Adequate supervision to prevent swimming, and provide a trained lifesaver. • Provide and train the fishermen on rescue means like lifejackets, GPS, etc. • Install early warning system for fishermen • Train the fisheries on the evacuation procedures in the sudden sea storms' cases.					
Operation and Maintenance Phase	• Occupational health and safety risks are similar to those in the section above on occupational health and safety during the construction phase • General occupational health and safety procedures for workers during operation.		**x**		• Ensure that the same relevant mitigation measures from the previous OHS impacts will be applied during the operation and maintenance phase.			x	• Fish Association • Fish Authority • SMEPS during their training program	

	• handling fish waste, biohazards, and poor hygienic practices				• Require appropriate personal protective equipment (PPE) like cut-resistance gloves, goggles, aprons, and dust masks. Enforce proper use of PPE at all times. • Provide hand washing stations and hand sanitizers for workers. • Employees in hazardous facilities should be trained in accident prevention, first aid, emergency response, and reporting protocols. • Use mechanical lifting aids and trolleys to reduce manual handling of heavy objects. • Raise awareness on good hygienic practices • Ensure the presence of fire extinguishers • Ensure presence of fire signs with details on how to use extinguishers • Train facility workers on using fire extinguishers and how to react in case of fire. Ensure regular inspections of fire extinguisher • Ensure presence of spill prevention kits and remove any spills straighaway				• community committee	

					• The number of firefighting units must be present on the signs. • Implementing proper procedures for collection, storage and disposal of fish waste and other biohazardous waste. • Ensure adequate wastewater treatment and solid waste management • Ensure non-slip flooring and walkways in processing areas • Wear PPEs including gloves and masks while handling fish wastes Store and label fish waste at designated zones • Regularly dispose fish waste/biohazards according to local authority by certified local contractor • Ensure workers maintain proper hygiene and cleaning of the site area and of their personal hygiene by ensuring soap and water is present on site					

6 Environmental, Social, and OHS Clauses and Liabilities for Contractors:

The ES and OHS conditions are the indicators that PWP will build on to select the eligible contractor for the ES requirements while the ES and OHS clauses are the measures and instructions that will be included in the bidding documents to ensure contractor obligations during the implementation.

6.1 Conditions for the Eligible Contractors:

1. Provision of adequate and suitable equipment for the activities of the subprojects
2. A financial capability that ensures the subprojects will be executed and completed as per agreed terms and conditions.
3. Provision of health insurance policies for the workers as a condition of signing the contracts.
4. The OHS tools should be provided with acceptable quality according to the BOQ with conducting training for the workers. These OHS tools should be conditional for the handover of the site to the contractors.
5. Contractors are fully responsible for any accident or incident that may occur
6. Contactor's strict compliance with the ban on the use of explosives.
7. Contractors and contractors' site representatives have undertaken OHS training and are fully aware of the risks, mitigation measures, and responsibilities.
8. Contractors should abide by the principle of non-discrimination in all aspects of employment.
9. Banning the use of explosives should be enforced and monitored.
10. The contractor will be terminated if they do not comply with the E&S and OHS mitigation measures during implementation according to the type of noncompliance.
11. Contractors shall ensure compliance with the Code of Conduct

6.2 Environmental and Social Clauses for Contractors:

The contractor shall supply and execute the necessary works on-site to mitigate the environmental and social impacts of the subproject in accordance with the bidding and contractual E&S requirements. Each contractor will be responsible for following a specific contractor-ESMP that will be included to their bidding documents[24] as specific specifications, items in BoQ, and ES instructions and guidelines as attachments. The Environmental and Social Clauses for Contractors should at least reflect the following but not exhaustive items:

1. Worker Health and Safety:

   To avoid work-related accidents and injuries, the contractors will:

   1.1 Provide occupational health and safety training on a regular basis to all employees involved in the works.

   1.2 Provide protective masks, helmets, gloves, overalls and safety shoes, and safety goggles, breathing apparatus as appropriate.

   1.3 Provide workers in high noise areas with earplugs or earmuffs.

[24] both bidding documents and works contracts will include specific clauses laying out contractor responsibilities including their responsibilities for compliance monitoring

1.4 Ensure availability of first aid box and ensure that at least one person trained in first aid is always available on-site.
1.5 Provide employees with access to toilets and potable drinking water and soap.
1.6 Train workers regarding the handling of hazardous materials and storing and managing hazardous materials

2. Labor Management Plan:

The estimated / planned number of labors for this fish landing subproject is 180 which (35%) 63 skilled and 113 (65%) unskilled labor during the project life for subproject in which the expected life project contract will be nine months. The contractor is responsible on:

2.1 Wages and Deductions: The contractor shall be in line with the current market rates paid for skilled, semi-skilled, or unskilled labor. Also, the daily rates could differ from one governorate to another; hence, they should be equivalent to the wages paid in the specific location. PWP field staff shall monitor and ensure the contractor pays all workers based on market rates in the area.
2.2 Child Labor and Forced Labor: Ensure all workers are 18 Years old and above, and no child, forced, involuntary or unpaid labor will be used in any work.
2.3 There will be no discrimination in the wage rates between males and females for that there will be no forced labor employed.
2.4 Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH): The contractor and its workers should sign the Code of Conduct (CoC) and ensure workers respect and adherence to it for the local community's protection and do no harm. Ensure that workers respect local community cultures, and social safeguard issues on Gender, SEA/SH. Raise awareness of the GM system and how it can be used to report any SEA/SH cases.
2.5 Community Health and Safety: The contractor shall protect the local community from any risks that might be generated during the implementation.
2.6 Occupational Health and Safety (OHS): The contractor shall maintain occupational health and safety system on the site to protect workers from hazards and risks and provide adequate health and safety training25, required PPE, first aid box, toilets, soap and potable drinking water, and as mentioned in the plan above.
2.7 Overtime Work: The contractor shall provide workers basic wages per hour of overtime on normal working days and on the day of weekend, and official holidays and leave, in addition to the entitlement to fair wages for such holidays according to the Yemeni labor Law.
2.8 Gender and Social Inclusion: Contractor to adopt non-discrimination in job opportunities during the implementation to ensure a non-discriminatory and inclusive manner, including women, as mentioned in the Environmental and Social Management Plan.
2.9 Training of workers: PWP staff and Contactor shall provide the workers with required training and daily toolbox talk in the Environment, OHS,, SEA, GM, and as mentioned in the Environmental and Social Management Plan.
2.10 Addressing worker grievances: Contactor shall provide the worksite with a GM system for all workers including providing the complaints box and the project board with complaint means. The mechanism will also allow for anonymous complaints to be raised and addressed. Ensure that workers are aware

[25] This project will be implemented by national / traditional contractors. However, the contractor will be responsible for providing training and PPEs for each worker

that grievances will be handled positively. Contractor, resident engineer, and community committee are trained to handle grievances positively.

1. Supply and implement roadblocks and traffic signs to prevent the entry of non-workers to work sites (zinc - timber - concrete blocks - warning tapes - traffic signs).
2. Carrying out the project activities that need skill at the hands of trained and skilled workers and ensuring full supervision.
3. Assign a permanent safety supervisor to follow up on the implementation of an environmental and social management plan as well as OHS requirements during the implementation of work activities at the site.
4. Apply a safety work permit system for all working activities at the site to ensure full implementation of ESMP and OHS requirements.
5. Supply of personal safety equipment and tools including boots, helmets, gloves, goggles, masks, earplugs, safety belts, air-breathing apparatus, full-body harnesses, etc. in quantities enough for all laborers at the expense of the contractor and ensure the adherence of use by all.
6. Provide first aid boxes in the worksite (as per the emergency response plan) which contain (adhesive plaster of different sizes - –sterile gauze - scissors – disinfectant- forceps - etc.).
7. Provide a emergency plan containing the names and numbers of the nearest health center and local assistants, the routes to be used, and the means of transport.
8. Provision of water and soap in rented apartment of (workers, supervisors, monitors and trainers) with bathrooms and or trenches with covers and obliging all workers and supervisors to use them.
9. Separate the material and store them accordingly and provide enough space for movement and maneuvering. If applicable, commit to properly removing, handling, storing, and disposing of hazardous wastes and materials according to their MSDSs by trained workers.
10. Removal of all waste during the implementation period to a dedicated location outside the work area (allocated landfills) and following the instructions of the consultant. If applicable, commit to properly removing, handling, storing, and disposing of hazardous wastes and materials according to their MSDSs by trained workers.
11. Commit to placing disturbing equipment away from populated places, not at accessible zones for the community, nor at sensitive zones and watercourses, and operating them at the appropriate times.
12. Commit to storing hazardous materials away from workers and not to changing oils or leaving grease residue in the work area.
13. Commit to the repair of public services (electricity, telephone, water, sewage) that are broken during the implementation of the project.
14. The contractor shall coordinate with the competent authorities to organize traffic in the streets to facilitate movement in case the project causes any congestion, if necessary.
15. Report immediately any accident or injury occurring during the execution of the work and within a maximum period of 24 hours to PWP and within 48 hours to the UNDP and the WBG.
16. Conduct awareness sessions about OHS before the beginning of work by the contractor this includes hazards associated with the activity, mitigation measures, workers' responsibility, GM, sexual harassment, abuse, as well as the disciplinary action against any violation.

17. The contractor shall adhere to the use of the Permit to Work system (PTW[26]) for all activities and ensure all workers are aware of the system.
18. Contractor must address the risk of SEA/SH, through: Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women.
    - Informing workers about national laws that make SEA/SH a punishable offense that is prosecuted.
    - Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination)
    - Adopting a policy to cooperate with law enforcement agencies in investigating complaints about SEA/SH.
19. Contractor must not employ workers below the age of 18 and must ensure verification of documents is conducted before hiring.
20. Provide proof of health and life insurance for all laborers, including the third party, before the implementation of the project.
21. Commitment not to use any type of explosive materials in any of the project's activities.
22. Movement of Trucks and Construction Machinery: The Contractor moving solid or liquid construction materials and waste shall take strict measures to minimize littering of roads by ensuring that vehicles are licensed and loaded in such a manner as to prevent falling off or spilling of construction materials. This could be done by sheeting the sides and tops of all vehicles carrying mud, sand, other materials, and debris. Construction materials should be brought from registered sources in the area and debris should be transferred to assigned places in the landfill with a documented confirmation.
23. The Contractor shall not commence any work affecting public vehicular roads or traffic around the project until all traffic safety measures required by the work have been fully operational.

28. Gas, Noise, and Dust Control: The Contractor shall take all practicable measures to minimize nuisance from noise, vibration, and dust caused by heavy vehicles and construction machinery. This includes:

- Respecting normal working hours in or close to residential areas.
- Maintaining equipment in a good working order to minimize extraneous noise from mechanical vibration, creaking, and squeaking, as well as emissions or fumes from the machinery.
- Shut down equipment when it is not directly in use.
- using operational noise mufflers
- Provide a water tanker and spray water when required to minimize the impact of dust.
- Limiting the speed of vehicles used for construction.

[26] A work permit is a permit that gives the contractor approval to begin carrying out the activity specified in the permit after reviewing the risks and control procedures for this activity.

- Environmental training on machinery efficiency, the importance of maintenance, transportation efficiency, and good practice usage of machinery to mitigate impacts from dust, gas, noise, and climate change

24. Protection of the Existing Installations: The Contractor shall properly safeguard all buildings, structures, works, services, or installations from harm, disturbance, or deterioration during the concession period. The Contractor shall take all necessary measures required for the support and protection of all buildings, structures, pipes, cables, sewers, and other apparatus during the concession period and will be required to repair any damage that may occur, in coordination with the Municipality and the relevant authorities.
25. The contractor must not engage in any illicit activities, including but not limited to, embezzlement, kickbacks, or any form of bribery or corruption. The contractor must also implement effective measures to prevent and detect any fraudulent or corrupt practices within their own organization, as well as within any subcontractors or suppliers involved in the sub-project.
26. To prevent theft of equipment and materials on the project site, the contractor must take all necessary measures to ensure their protection.
27. The contractor shall be responsible for implementing security measures, such as fencing, lighting, and surveillance cameras, to prevent unauthorized access to the project site.
28. The contractor shall be required to conduct regular inspections of the project site to identify and address any potential soil erosion or destabilization risks.
29. As part of the project's commitment to preserving cultural heritage, the contractor must conduct a pre-construction archaeological survey of the construction site. This survey shall be conducted by qualified and experienced archaeological experts, and shall involve a comprehensive assessment of the project area to identify any potential archaeological artifacts or features that may be impacted by construction activities.
30. The Contractor shall ensure that workers are trained and competent in the proper handling, handling, storage, and disposal of hazardous chemicals or materials, including but not limited to paints, cement, sealants, and other materials, and that they are aware of the potential health risks associated with handling such materials.
31. The contractor shall be responsible for ensuring that all scaffolding, ladders, and other surfaces are properly secured and supported, and that they are able to support the weight of workers and equipment without risk of collapse or failure.
32. The contractor shall be responsible for verifying that all workers have the necessary qualifications and training to work with electrical equipment, and that they are aware of the hazards associated with working with electrical equipment.
33. The contractor shall also be responsible for ensuring that all electrical equipment is properly installed, maintained, and used in accordance with all applicable laws and regulations.
34. The contractor is required to ensure proper implementation of dangerous and heavy lifting operations. This includes developing a communication plan and coordinating lifting plans before each elevator to ensure the safety of the work, loads, and equipment.
35. The contractor shall ensure that all personnel involved in concrete work wear appropriate personal protective equipment . In addition, the contractor shall ensure the integrity of all frameworks used in

the concrete work. The frameworks shall be properly installed and securely braced to prevent any failure or collapse during the work.

36. The contractor shall ensure that all personnel involved in welding and iron work wear appropriate personal protective equipment (welding helmets, face shields, safety glasses, leather gloves, and leather aprons). In addition, ensure the safety of all installation and welding work. The installation and welding work shall be performed in accordance with all applicable safety standards and regulations, and shall be inspected by a qualified inspector to ensure that it is safe and meets all required specifications.
37. The contractor shall ensure that all personnel involved in sanitary work wear appropriate personal protective equipment (gloves, safety glasses, and respiratory protection). In addition, ensure the safety and well-testing of all sanitary work. The sanitary work shall be performed in accordance with all applicable safety standards and regulations, and shall be inspected by a qualified inspector to ensure that it is safe and meets all required specifications.
38. Working in bad weather is not allowed.
39. Environmental training on machinery efficiency, the importance of maintenance, transportation efficiency, and good practice usage of machinery to mitigate impacts from dust, gas, noise, and climate change

6.3 Environmental and Social Liabilities for Contractors

The contractor is responsible to ensure that all the subcontractors and supplier under him/her meet the requirements of national laws and the relevant world bank ESF standards

Contractors will be legally and financially accountable for any environmental or social damage or prejudice caused by their workers and it is thus expected that controls and procedures are put in place to manage environmental and social performance. These will include:

- Mitigation measures to be included in the contract will be specified in the subproject bidding documents.
- Deductions for environmental noncompliance will be added as a clause in the Bill of Quantities (BOQ) section.
- The contractor should fully comply with all instructions; otherwise, according to the contract documents, suitable sanctions should be applied depending on the severity of the expected risk from this noncompliance, such as alert, final alert, and termination of the contract.
- Environmental penalties shall be calculated and deducted from each submitted invoice.
- Any impact that is not properly mitigated will be the object of an environmental/social notice by PWP.
- Any action from the perspective of PWP can cause a huge impact (depending in its severity) on the occupational health and safety, in the environment or the social aspects, PWP has the power to terminate the contractor's contract, put the contractor in the black list, and Warranty confiscation.
- For minor infringements and social and environmental complaints: if an incident occurs, that causes temporary but reversible damage, the contractors will be given the notice to remedy the problem and restore the environment. No further actions will be taken if the PWP project engineer confirms that restoration is done satisfactorily.
- For social and environmental notices, the PWP project engineer will alert the contractors to remedy the social and environmental impact and to follow the issue until solved. If the contractor does not comply with the remediation request, work will be stopped and considered under no excused delay.

- If the contractors have not remedied the environmental impact during the allotted time, the PWP will stop the work and give the contractors a notification indicating a financial penalty according to the non-compiled mitigation measure that was specified in the bidding document. No further actions will be required if that restoration is done satisfactorily. Otherwise, if Contractors have not remedied the situation within one day any additional days of stopping work will be considered no excused delay.
- In the event of repeated non-compliance totaling 5% of the contract value, the Project Engineer will bring the environmental and social notices to the PWP procurement to take legal action.

6.4 Public Works Project Liabilities

1. Provision of insurance policies for the workers as a condition of signing the contracts.
2. PWP site engineer and community committee OHS officer have undertaken OHS training and are fully aware of the risks, mitigation measures, and responsibilities.
3. The contractor will be warned and banned if they do not comply with the E&S and OHS mitigation measures during implementation.
4. Labor management plan:

4.1 Training of workers: PWP staff and Contactors shall provide the workers with required training and daily toolbox talk in the OHS, SEA, GM, and as mentioned in the Environmental and Social Impact Analysis Plan and Mitigation Measures above.

4.2 PWP site engineer Conduct awareness sessions about OHS before the beginning of work by the contractors this includes hazards associated with the activity, mitigation measures, workers' responsibility, GM, sexual harassment, abuse, as well as the disciplinary action against any violation.

7 Environmental and Social Monitoring Plan:

The following table indicates mitigation measures with reference to the above tables of the ESMP for the E&S and OH&S. The monitoring indicators are addressed for all the mitigation measures. The implementation of the mitigation measures will be monitored through daily checks by the resident engineers, biweekly by the OHS/SES staff at the branches as well as monthly visits by PWP subareas managers and the regular TPM, community committee, and UNDP field monitoring visits.

The roles and responsibilities of each responsible personnel are as follows:

- Gender Focal Point: is responsible to monitor the implementation of measures under the gender action plan, including those related to gender equity, gender discrimination, SEA, women workforce, beneficiaries' awareness
- Safeguard Specialist: is responsible to monitor all the safeguards process (as a general supervisor) as detailed in the ESMP and other ES documents, including SEP, and ensuring their compliance.
- GM Officer is responsible to monitor the GM processes, including awareness raising, receiving complaints and following up, and reaching closure.
- Resident Engineer: conduct daily monitoring and guarantee compliance in the field on subproject bases.
- Community Committee: support in monitoring and solving the problems if any, support in raising the awareness of the community, monitoring the community inclusion and Community satisfaction.
- Subarea Staff: follow up on the compliance in sites and ensure everything is implemented according to the ESMP.

  The following table 8 aspects will be monitored (though the list will be kept updated to accommodate any emerging issues or updated aspects that may be recommended by the monitoring reports):

Table 9 Environmental and Social Monitoring Plan

Action	Monitoring methodologies and Indicators	Responsible[27]	Timeframe
Community Health and safety			
Knowledge of the local community, the community committee, and workers about the GM, as well as the contact numbers.	**Methodology:** • Provide a complaint box, awareness-raising, Signboard with GM contact details in place and brochures distributed. **Indicator:** • The number of awareness-raising. • Presence of sign board with GM contact details • The number of complaints	• Sub-area Staff • Resident Engineer	• Bi-weekly
Regular awareness sessions to community members, the community committee, and workers about the use of GM	**Methodology:** • Awareness records **Indicator:** • Number of awareness session to communities and workers.	• Resident Engineer • Gender Focal Point • Subarea Staff	Regularly /Bi-weekly Within one week before commencement of work
Public safety during the construction work	**Methodology:** • Visual observation and photos **Indicator:** • Number of recorded injures. • Number of awareness sessions for community	• Resident Engineer • Contractor	• Daily
Community satisfaction	**Methodology**: • Surveys and Interviews • Grievances • Community meetings **Indicator**: • Number of grievances raised and types	• Community Committee • GM Officer • Community Committee • Safeguard Specialist	• Monthly

[27] The indicators are shared between the Responsible agencies, some of them are the responsible for implement the action and others are responsible for monitoring the actions' implementation according to the level of the position.

	• Number of resolved complaints • Number of accidents		
No child labor is permitted, and workers must be 18 years or older.	**Methodology**: • Verifying age by checking IDs and other available documents • Ensure a Labor Log is available, and all workers are registered • Visual inspection **Indicator**: • Number of child labor (employed/ used or number of recorded workers under the age of 18 • Labor log and IDs.	• Contractor • Resident Engineer • Community Committee	• Daily
Involvement of the community in the monitoring of the implementation of the sub-project and reporting any findings	**Methodology**: • Disclosure of project activities with designs • Using GM system **Indicator**: • No. of GM complaints from the community • The number of resolved complaints	• Community Committee • Sub-area Staff • Resident Engineer	• Daily
Ensure non-discrimination and inclusion of women and persons with disabilities when selecting beneficiaries	**Methodology**: • The beneficiaries of the project **Indicators**: • Number of women beneficiaries during consultations versus men • Number of women and men in community committees • Number of GM complaints regarding discrimination and solved complaints • Number of consultations with exclusively women groups	• Gender Focal Point • Sub-area staff • Resident Engineer • Safeguard Specialist • Community Committee	• Before the commencement of work • During the implementation
Ensure no financial exploitation of communities or beneficiaries	**Methodology**: • GM complaints • Awareness sessions	• Sub-area staff • Resident Engineer • Safeguard Specialist	• Weekly • Monthly

	Indicator: • Number of GM complaints regarding financial exploitation	• Community Committee	
Monitoring and reporting SEA/ SH issues and , Ensure GM cases related to SEA/SH are well treated and mitigated quickly.	**Methodology**: • Provide GM system **Indicator**: • Number of recorded grievances related to SEA/ SH and number of solved grievances	• Gender Focal Point • Safeguard Specialist • GM Specialist • Resident Engineer	• Weekly
Ensuring awareness is raised regarding SEA / SH among all the community. Ensure laws are known for any violations	**Methodology**: • Use of Photos • Provide an awareness session about punishing violations. **Indicators**: • Number of awareness sessions • Number of SEA/SH cases	• Gender Focal Point • Resident Engineer • Community Committee	• Monthly
Ensure contractors and their workers signed the Code of Conduct CoC and they are aware to respect the local community's protection and do no harm.	**Methodology**: • Provide awareness-rising. • GM system in place. • Contactor and its workers to sign the COC. **Indicators**: • 100% of Contractors, and their workers signed on the Code of Conduct (CoC). Number of complaints received.	• PWP Safeguard/ Contractor/ Resident Engineer/ Gender Focal Point	Before commencement of work • Biweekly.
Ensure latrines and handwashing stations are available and supplied with water and soap	**Methodology**: • Visual and photographic inspection. **Indicators** • Presence of running water observed. Presence of soap observed.	Contractor/ Resident Engineer	Daily
Prepare a traffic management plan (TMP) as part of the C-ESMP depending on the traffic volume and the condition/nature of local routes	**Methodology** • Traffic management plan in worksite **Indicators**: • Number of accidents.	Contractor/ Resident Engineer •	Daily as required

	Number of signboards related to traffic management.		
Signboard with GM contact details in place	**Methodology** • Visual inspection **Indicators**: Number of Signboard with GM contact details in place	Subarea Staff Resident Engineer	Within one week before commencement of work
Environmental Impacts			
Soil contamination by spills oil during change for equipment maintenance and vehicles and spills paint and from liquid waste	**Methodology**: • Visual inspection and photographs • Complaint records **Indicator**: • Change in soil color • Presence of oil on the soil observed • Number of recorded Soil pollution in work site • Number of complaints from locals • Number of complaints from locals • Number of spill events	• Resident Engineer • Contractor	• Daily
Monitor improper waste management by visual inspection Solid and liquid waste produced by workers (trash and plastic bags) accumulates and pollutes the environment	**Methodology**: • Grievances system related to waste mismanagement • Periodic inspection for non-compliance with waste storage **Indicators**: • Number of non-compliance with waste storage and handling • Number of times waste was improperly accumulated, or wasted was recorded and stored outside a designated area • Number of grievances related to waste mismanagement • Presence of oil or solid waste observed	• Resident Engineer	• Daily

air pollution, gas emissions, noise, waste, and traffic management	**Methodology**: • Complaints records. • Visual inspection • Noise measurement equipment **Indicators**: • The presence of fumes /dust observed • Number of society complaints on the air quality, noise level or waste at work site • Number of recorded wastes at undesignated areas • Noise monitoring results in above legal limits.	• Resident Engineer	• Daily
Hazardous materials and wastes storage	**Methodology**: • Visual and photographic inspection • Water tests on ground water wells **Indicator**: • Number of times hazardous materials and waste were recorded outside designated zones • Visible soil leak and change in soil color • Carry water monitoring on ground water well and ensure abstraction of water does not surpass the well recharge capacity. This swill be done in coordination with other well users and local community. •	• Resident Engineer • Contractor	• Daily
Contamination of water resources, drain on water resources, Water contamination by sediment particles in suspension, and impacts on flora and fauna.	**Methodology**: • Visual and photographic inspection. **Indicator** • Presence of water resources contamination observed. Number of recorded water resources contamination in work site.	Resident Engineer •	• Daily

loss of biodiversity and associated benefits during construction	**Methodology**: • Visual and photographic inspection. • Inspection/site visits **Indicators** • Significant change in marine species structure and composition. • Presence of dead animals including gulls. • Work is conducted outside bird sensitive seasons (breeding season). Number of spill events.	Resident Engineer •	• Daily
Trees planting shall be conducted as BOQs	**Methodology**: • Visual and photographic inspection. **Indicators** • Number of planted native trees.	Contractor /Resident Engineer •	• Before invoice No. 1
Occupational health and safety			
Adherence of contractor to permit to work system for activities as identified by the risk assessment[28] and ensuring all safety measures for the task are in place	**Methodology**: • Issuance of the permit to work • Incident records **Indicators**: • Number of issued permits of work and safety measures with the type of work • Number of incidents/ accidents recorded and type	• Contractor • Resident Engineer • PWP safeguard	Daily as required
Conduct comprehensive training and about occupational and health safety (OHS) aspects before the beginning of the sub-project implementation.	**Methodology**: • Training records and content. • evaluate workers during their tasks • Knowledge assessment **Indicators**:	• GM Officer • Contractor • Resident Engineer • Safeguard Specialist • Community Committee	• Daily as required

[28] Risk assessment should be undertaken once in the project cycle and when its required as when we have new activities in the subprojects or when a severe accident happens, in which the risks and their mitigation measures should be attached with sub-project documents.

	• Complete training records for all workers • Low failure rates on knowledge assessments Observations showing workers applying proper safety practices	•	
All OHS requirements for the sub-project are identified and available in the workplace.	**Methodology**: • Incorporating OHS requirements into project documents. • OHS inspections and audits **Indicators:** • Number of incidents and types • The record of injuries in project reports	• Subarea Staff • Resident Engineer	• Daily as required
Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free	**Methodology**: • Implement appropriate controls to eliminate or minimize risks. Inspections to identify any new hazards **Indicators**: • Number of hazards identified • Percentage of risks controlled Inspection findings Presence of PPEs Number of workers not adhering to PPEs	• Contractor • Resident Engineer • Workers • Community Committee • Safeguard Specialist •	• Daily
Conduct regular inspections for any unsafe acts, near misses, or accidents.	**Methodology**: • Routine inspections of the worksite, tools, equipment and worker tasks • Near miss reporting • Accident/injury reporting **Indicators**: • Number of unsafe acts or at-risk behaviors • Rate of near miss reports Severity of injuries	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist •	• Daily
Workers aware of the safety requirements are conducted	**Methodology**: • Awareness sessions records	• Resident Engineer	• Weekly

	• Visual observation and photographic documentation **Indicator**: • Number of awareness sessions for workers. • Number of injuries		
Occupational Health and Safety Hazards	**Methodology**: • Inspection on availability of the correct type of PPEs and the adherence to proper use of PPE by all workers **Indicators**: • Number of workers adhering to the suitable PPEs • Number of injuries accidents and details on recovery	• Contractor • Resident Engineer	• Daily
Workers' satisfaction	**Methodology**: • Workers' grievances system **Indicators**: • Number of workers' grievances and type • Number of resolved grievances	• Contractor • Resident Engineer	• Weekly
Involving the community committee in the monitoring of safety procedures and reporting any risks	**Methodology**: • Conduct joint inspections • Respond to issues raised **Indicators**: • Regular meetings and inspections with the community Number of risks/hazards identified by community committee	• Community Committee • Resident Engineer • Contractor • Safeguard Specialist •	• Daily
An emergency response plan with details of the nearest hospital or medical center shall be in place and responsibilities are understood by all workers. First aid boxes are available and a list of trained First aiders is posted and known by all workers	**Methodology**: Photos and site inspection **Indicators:** • Emergency plan banner in the site photo • Photos that reflect workers' training in the emergency plan and the first aid. • Photo for the first aid box on site	• Contractor • Resident Engineer • Safeguard Specialist	• From the beginning of the implementation

	• Number of emergency events and type		
Inspections are conducted to verify the safety measures are in place and documented	**Methodology**: • Forms and reports filled in every visit **Indicator**: • The number of problems found/non compliances	• Sub-area Staff • Resident Engineer	• Daily • Monthly • Bi-monthly
Severe accidents and incidents are reported to head office within 24 hours and communicated to UNDP and within 48 hours to the WBG	**Methodology**: • Accident, and injuries reports within 24 hours **Indicators**: • Number and types of accidents, and injuries reported and recorded and time of reporting • Number of reported accidents within 24 hours to UNDP and within 48 hours to the SBG versus the number of reported accidents after 24 hours to UNDP and after 48 hours to WBG	• Safeguard specialist • Resident Engineer	• within 48 hours
Ensure all activities that require specific skills are done by skilled workers.	**Methodology**: • Labor data with skill level **Indicator**: • Number of skilled workers, and type of work • **ercentage of workers with documented qualifications meeting job requirements**	• Resident Engineer	• Daily
Tools and equipment are to be regularly maintained and inspected to ensure they are of acceptable quality and in good working condition for the required activity	**Methodology**: • Periodic inspection of tools and equipment • Inspection on maintenance log **Indicator:** • Results of the periodic report Number of maintenance performed on tools <u>Number of times fire extinguishers were inspected</u>	• Resident Engineer	• Monthly

All construction works are to be conducted during daylight and when required night works are allowed	**Methodology**: • Using GM system **Indicator**: • No. of GM complaints and number of resolved complaints Presence and number of workers on site and time Presence of permits to work at night Presence of female workers at night (non-compliance)	• Resident Engineer • Community Committee	• Daily
Organizing the movement of equipment and vehicles at the project site	**Methodology**: • Define routes • Enforce safe speed limits • Scheduled movements **Indicator**: • Worksite map showing clearly defined routes Number of near miss incidents	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist •	• Daily
Manual handling	**Methodology**: • Mechanical aids • Safe work procedures for manual handling tasks • Monitoring **Indicator**: • Completeness and functionality of mechanical lifting aids Adherence to safe work procedures observed during monitoring	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist •	• Daily
Operational phase monitoring			
Maintenance works during operational phase	**Methodology:** • Complaints recorded. • Visual inspection • Maintenance records **Indicator:** • Visible deterioration detected.	• Community Committee/ Local Authority / Fish Association	• Monthly

	• Number of complaints regarding quality/deterioration Number of maintenances performed for the structures		
The depletion of fish stocks	**Methodology:** • Issue numbered permits aligned to quotas/limitations • Monitor gear used and catch quantity Permit inspections **Indicator:** • No. of permits issued vs total fishing capacity. Catch data vs quotas/seasonal restrictions	• Community Committee • Local Authority	• Twicey a year/or per fishing seasons
Solid and liquid waste generated from facilities of the center, air emissions and odor emissions	**Methodology:** • Inspect filter pond operation. And sediment removal regularly. • Inspect waste storage, loading/transport procedures. • Consult local authorities and community on impacts. **Indicator:** • Filter pond efficiency. • Inspection reports for storage, load spills, transport vehicles. • Feedback from authorities /communities on waste management. Number of complaints regarding emissions and wastes	• Community Committee • Local Authority	• Monthly
Biodiversity Conservation	**Methodology**: • Proper management of fishermen. • Raising awareness of fishermen. • Encourage the use of mooring anchorage instead of traditional anchors.	• Fish Association / Local Council / EPA and fish authority	• Monthly

	• Monitoring and inspection of biodiversity. • Inspection/site visits. **Indicators:** • Significant change in species structure and composition. • Presence of dead animals. • Significant decrease in seaweed cover. • Presence of fishermen during spawning seasons • Number of spill events. • Presence of mooring buoys instead of traditional anchors. Number of awareness sessions provided to fishermen.		
Working in unhealthy areas and presence of wastes	**Methodology:** • Complaints recorded. • Visual inspection • Number of trainings on OHS, environmental issues and social issues Injuries log **Indicator:** • Number of complaints regarding health issues Number of trainings provided regarding OHS, environmental and social topics. Number of injuries/accidents/incidents	Fish Association Fish Authority • Community Committee	• Every three months
General occupational health and safety procedures for workers during cleaning, packaging,	**Methodology**: • Monitor use and proper maintenance of all required personal protective equipment (PPE). • OHS inspections and audits **Indicators:** • Number of incidents and types The record of injuries in project reports	• Community Committee Local Authority	• Monthly

Prevention of child labor	**Methodology**: • Checking identification documents • Worker interviews. **Indicator**: Age verification from the IDs shows workers below 18 years of age	• Community Committee • Local Authority •	• Monthly

8 Stakeholders Engagement Plan and Public Consultation:

8.1 Public Consultation

The stakeholders' engagement meeting has been conducted by engaging all parties that will be targeted in these interventions including relevant local authorities, fisheries association, communities' leaders, and local communities. PWP social team has conducted several focused group discussions and interviews with concerned persons regarding the proposed sub-project. Through those meetings, information has been collected related to the current situation of the fish landing site and the priorities of rehabilitating needs. Social and environmental impacts, either negatively or positively, have been discussed with different stakeholders and used in proposing the environmental and social management plan (ESMP) measures, also, the meeting include sharing communities' needs, deciding the priorities, and developing the subproject design and plan.

Table 10 subprojects Consultation Date

Sub Project Intervention	Consultation Date	Consulted Beneficiaries		
		Male	Female	Total
Fish landing sub-Project at Saqr, Hesween, Al-Maharah	9/2/2023	60	4	64
Total		**60**	**4**	**64**

8.2 Public Consultation Findings and Feedback

The consultation process took the form of face-to-face and group interviews with local community members (both males and females) and feedback collected through questionnaires and discussion. The following table shows the most important concerns of the community and the findings that have been clarified

Table 11 Public Consultation Findings and Feedback

Summary of Consultation for Al-Saqr Landing Center [Stakeholder for Al-Saqr Landing Center]	
Date of consultation	09/02/2023
Location of consultation	Al-Saqr square
Total Number of participants (# of women / # of men)	Total 64 Men: 60 Women: 4
Have measures been taken to ensure the inclusion of vulnerable people (e.g. the elderly, people with reduced mobility, people with special needs, illiterate people, women, etc.) (if so, who/how)?	Stakeholders including local authorities and community leaders were invited to attend and participate in the consultation meeting through public announcements, individual and group interviews while touring the sub-project area. The elderly and women were included in the consultations regarding their needs, and women were

Main issues/ identified risks/concerns/questions/complaints (specify if male or female)	Answers from the project team	Follow-up actions (who is responsible and by when)
• Types of risks resulting from project activities • The local community's right to have a job opportunity during implementation. • The local community's roles in monitoring the compliance of contractors and workers in the worksites and their rights to give their concerns. • Children under 18 years old are not allowed in PWP projects. • The positive impacts that the sub-project will have on improving services to the beneficiaries. • Raise their awareness regarding social safeguards such as SH, and Sexual Exploitation and Abuse, that may occur during the implementation and the required measures that should be taken in case of occurrence. • use the GM to give their opinions regarding social safeguards, OHS, and any complaints and concerns without fear.	• Follow security and safety instructions with the need to adhere to mitigation measures. • Men, women, and IDPs in the community have the right to get a job opportunity in the project. • Positive interaction with the community's roles. • The need to involve community youth over the age of 18 during the implementation of the works. • Community acceptance of the sub-project positive impacts. • There were no concerns regarding social safeguards such as SH, and abuse.	• Contractor, Technical Resident Engineer • Contractor, Technical Resident Engineer • Community committee, Local Authority, Fish Association • Technical Resident Engineer • Gender Focal Point, Community committee

	• Positive interaction with the GM system.	

8.3 Sustainability of Subproject and Community Ownership

PWP engages all affected parties of subprojects within the subprojects cycle, consultations are conducted at various stages including consultation with the communities for the selection of interventions based on focal group discussions with women and men, formation of the Community committees by electing members including female members with the total number of 5 male and 0 females, training on various aspects for operation and maintenance. Also, coordination with Local Authorities / Councils to inform on activities taking place, the possibility of their role in operation and maintenance, their role as facilitators in case of security issues or any disputes, etc., as well as coordination with other implementing partners IPs such as and other agencies in the Field. Furthermore, PWP conducts public feedback sessions with targeted communities during site visits to listen to their concerns and feedback as well as to ensure their acceptance of the interventions.

Before the subproject handing over, PWP sub-area manager invites the beneficiaries' representative to participate in this occasion. The beneficiaries' representative could be the head of the community committee, Fisheries Association, local council member, district manager, or any entity representing the beneficiaries. The site handing over ends with minutes of subproject handing over between PWP sub-area manager and the contractor with the signing of the beneficiaries' representative. During this occasion, the sub-area manager makes awareness to the attendance beneficiaries about the importance of the sub-project maintenance to ensure the sustainability of the intervention. Also, the community will be consulted on how a rehabilitated site will be managed in the future. The community committee will have the right also to monitor this site. The Fish Association will be given the responsibility to manage the activities, collect the fees, provide the services and provide the maintenance

8.4 Stakeholders Engagement Plan:

PWP will continue to engage the stakeholders during the subproject's implementation by conducting meetings with beneficiaries, community committees, and local authorities to discuss any raised issues, and implementation aspects, as well as listen to stakeholders' concerns and feedback. Subarea's managers will conduct monthly meetings with community committees around four times during the implementation

to coordinate with them for the implementation and safeguard issues, conducting awareness and training sessions regarding safeguard requirements and their monitoring roles.

Also, PWP resident engineers will be in continuous cooperation and coordination with the community committees at the sites to discuss any issues that might be raised. Furthermore, different meetings with the local authorities may be conducted to facilitate implementation. In addition, at the end of implementation meetings with beneficiaries, community committees, and local authorities will prepare for the subproject submission and operation process. Also, to conduct the training for beneficiaries and community committees on the project operation and maintenance to ensure subprojects sustainability.

Fish landing sub-project at Saqr, Hesween, Al-Maharah (social consultation 9/2/2023

Figure 4 Stakeholders Engagement

8.5 Capacity Building

According to the ESMF, UNDP will conduct capacity building for different levels in all subprojects' life cycles. Annual comprehensive training will be done for PWP main and sub-areas staff in which revision and updates had been reflected according to the world bank's new ESF. During the public consultation, awareness was given covering all topics in section 8.2 (public consultation and feedback). The executive staff 29managing project implementation at the governorates level will have training seasons that reflect their responsibilities, liabilities, risk\impact assessment, and mitigation measures plan, and they should sign their commitment to these procedures.

Also, another training will take place for resident engineers where every person's responsibility, implementation procedures, needed forms, risk assessment methods, and general OHS procedures will be given. In site handing to the contractor, PWP sub-area representatives will conduct awareness sessions for workers, community committees, and some of the community members that will represent the

[29] The contractor, supervisor engineer, and contractor OHS assistant.

required Environmental, social, and OHS aspects needed in the implementation phase. During the implementation phase, different awareness sessions should be done during the different sub-projects period. The supervisor engineer with help from the contractor OHS assistant will conduct daily awareness sessions as possible in which daily expected risks in daily work should be reflected for workers. SEA, , code of conduct, and Covid-19 procedures will be part of this awareness as well. Every two weeks, the PWP sub-area assistant will be aware of workers and local communities during his site visit. Everyone month, PWP sub-area managers will raise the worker's and the local community's awareness as well. On-site handing over occasion, project maintenance procedures shall be given to local authorities and communities' committees as part of the project closing phase.

8.6 Grievance Mechanism

As part of an ongoing move to improve its accountability, PWP has developed a GM system for managing, responding to, and monitoring issues within its Programs. The GM system is accessible to all people engaged in PWP activities including workers, contractors, stakeholders, beneficiaries, etc. The accumulated experience in PWP to respond and interact with all partners and beneficiaries enables it to improve and adopt an efficient GM, focusing on institutionalizing the experience in dealing with complaints and mainstreaming it in the system context including MIS.

GM awareness sessions have been conducted to explain the mechanism and introduce the system to the local communities, including female members and workers. GM brochures distributed to the local community that have full details on the system and complaint boxes placed in the subproject sites which will be opened weekly in a formal meeting with supervision from the local community committee -that is selected earlier during the early intervention stage and is usually consisted of 50% males and 50% females- . The complaints are then registered and classified according to their type and raised to branch offices to be addressed and solved.

Other communication means are also introduced to beneficiaries and listed below

- Complaints box at subproject location which is open every week
- Telephone: 8002626
- SMS, Telephone, and What's up to no. 775626262
- Face to face by visiting PWP offices

PWP has GM staff at HQs and locally at the subproject for GM handling. In coordination with community committees, each complaint is resolved either at the field by the Supervisor, or the Branch Office Manager or raised to the HQ. Complaint boxes are collected by PWP staff during bi-weekly field visits. Ensure registering all complaints and addressing all that can be resolved in the field. The designated GM specialist monitors complaints to ensure they are resolved satisfactorily, and complaints are closed. Complaints received will be recorded and investigated and the person who submits the complaints will be notified of the updates on his/her case. Similarly, all complaints received anonymously will be treated at the same level and as seriously as other complaints.

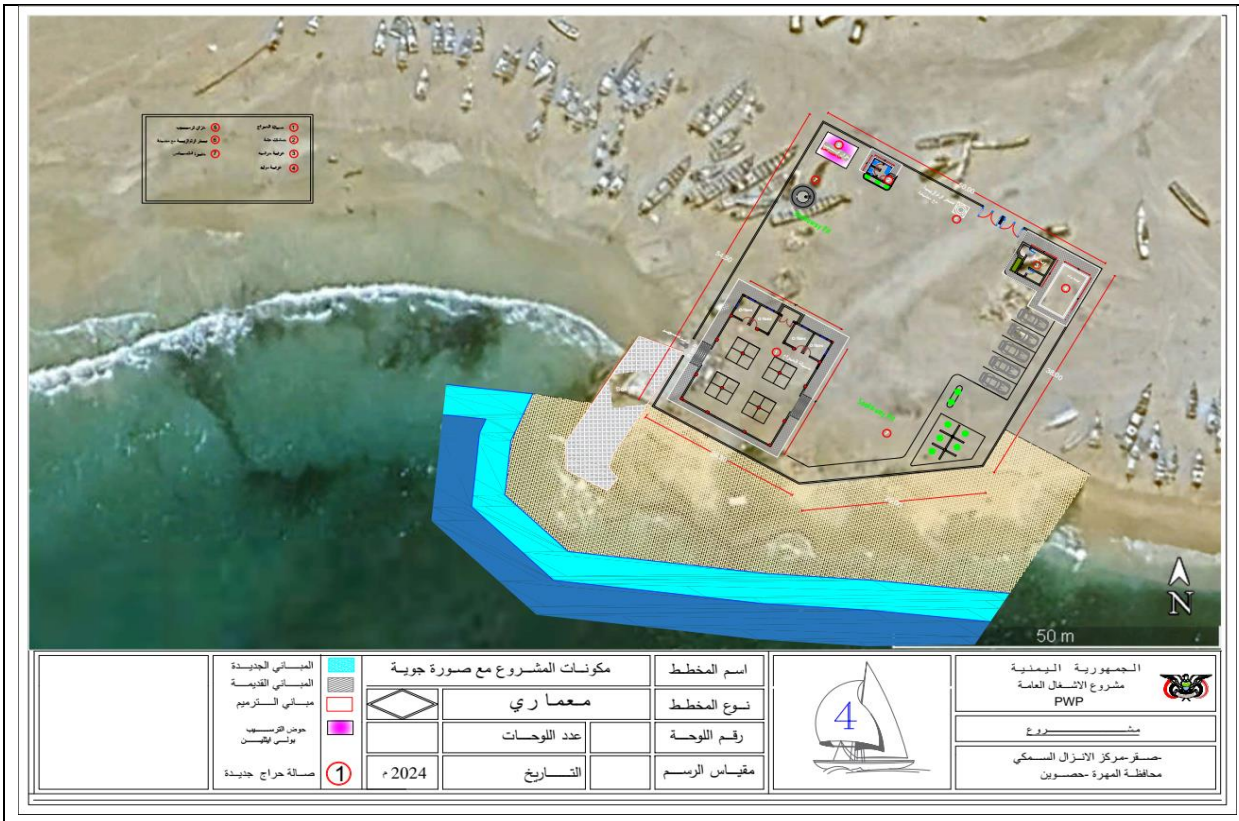
Every effort is made to resolve any issue at the community level and within a time frame of 14 days. UNDP will monitor the implementation of the Grievance Mechanism (GM) system and follow up on pending

complaints and provide any needed assistance in case PWP is not able to solve the complaints themselves or higher involvement is required through SRM- Stakeholder Response Mechanism- to help project-affected stakeholders, governments and other partners jointly resolve concerns and disputes. SEA/SH-related complaints will be managed within the overall GM in which complaints will be managed according to SEA/SH action plan procedures. After one year, the GM system will be reviewed to improve it. For instance, by examining the nature of complaints, complaints made by which gender, If the GM is adapted to women if no women made complaints, … etc.

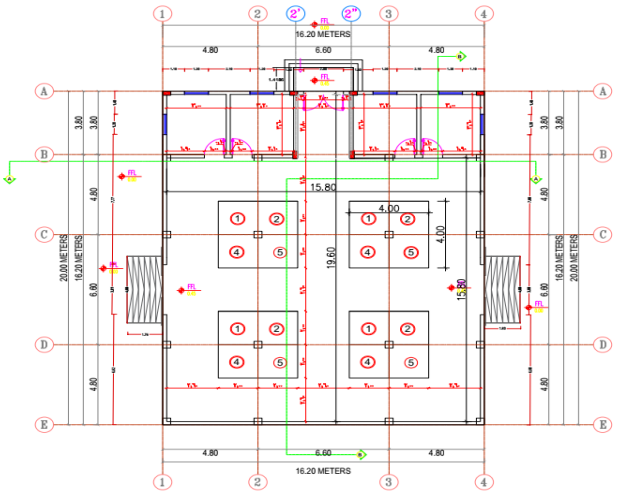
Annexes

Annex 1 – Typical Drawings

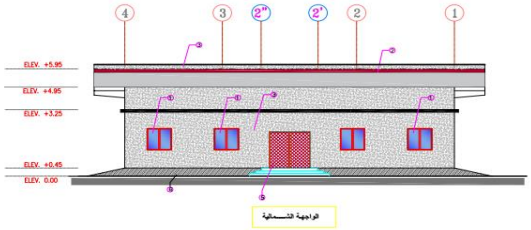
Figure 5 Photo Showing the Typical drawing of the general site plan location for SAQR landing center



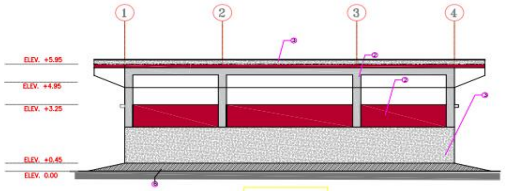
Site Plan for SAQR subproject



	مبـــنى صـــالة الحـــراج	محاور وأبعاد واعمدة صالة الحراج			اسم المخطط	9	الجمهورية اليمنية مشروع الاشغال العامة pwp
		معماري	1		نوع المخطط		
		30	عدد اللوحات	02	رقم اللوحة		اسم المشروع: مركز الانزال السمكي - منطقة مقر - المهرة
		2024 م	الشاريخ		مقياس الرسم		مكونات المشروع: بناء صالة حراج والمرفقات من حمامات عامة وغرفة تحكم ومولد



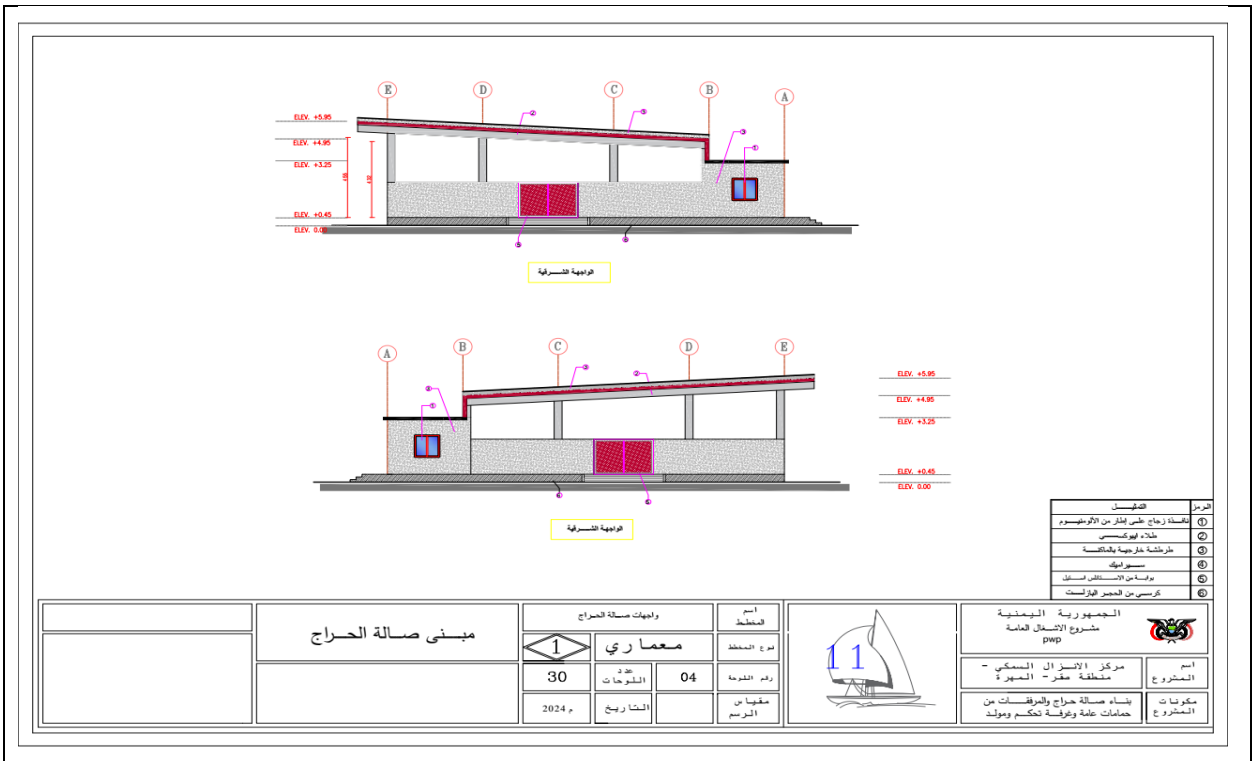
الواجهة الشمالية

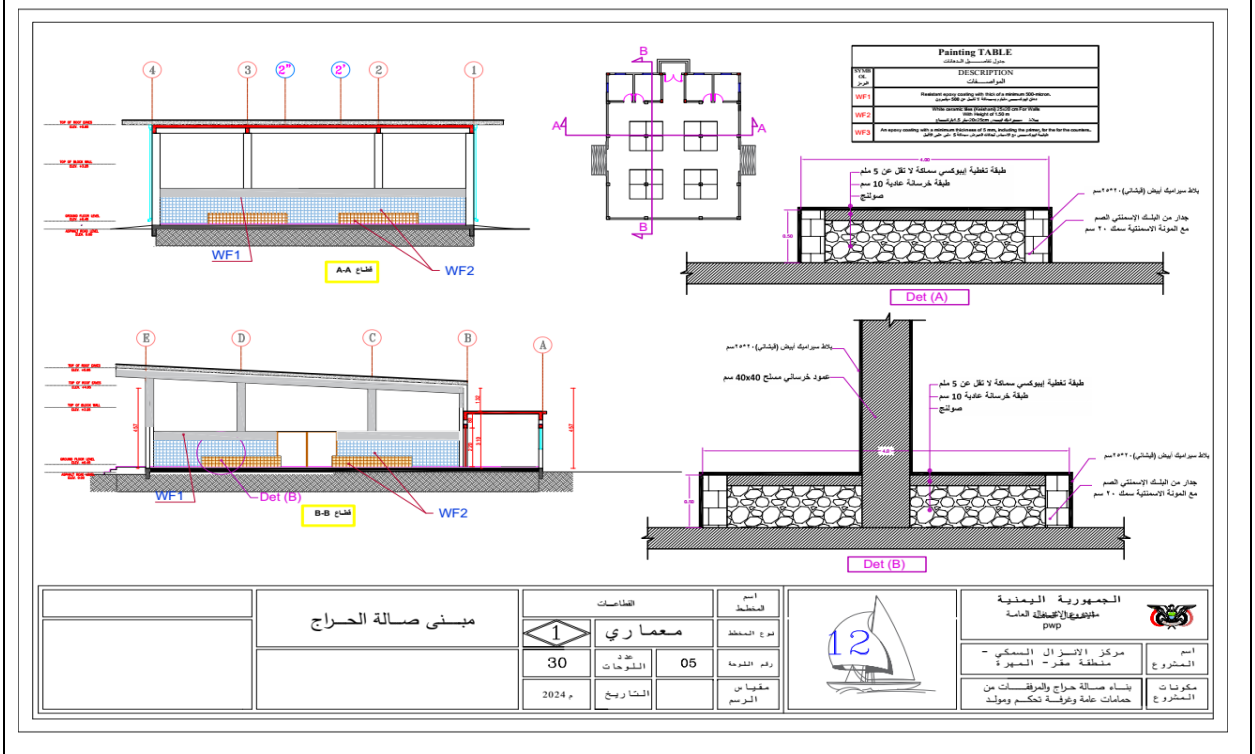


الواجهة الجنوبية

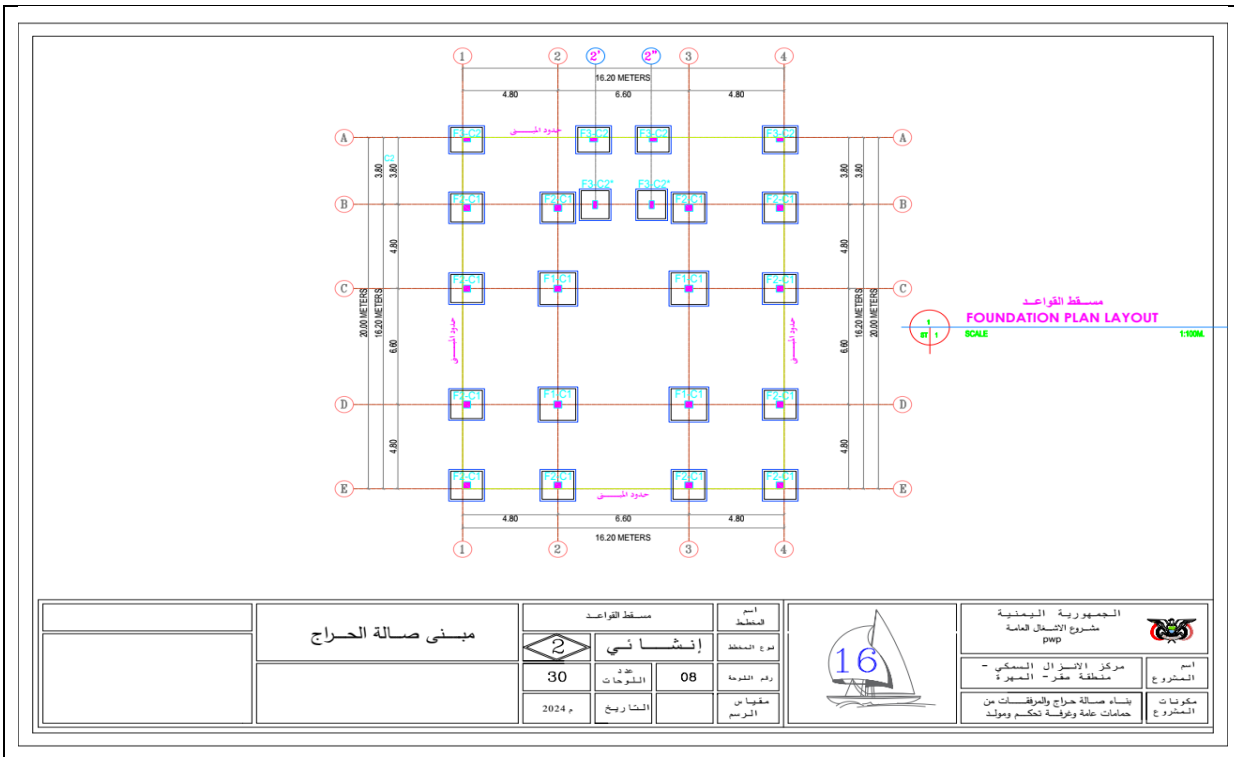
الرمز	التشطيل
①	بالصنة زجاج علمي إطار من الألومنيوم
②	طلاء إيبوكسي
③	طرطشة خارجية بالمكاسة
④	سيراميك
⑤	بوابة من الاستانلس ستيل
⑥	كرسي من الحجر البازلت

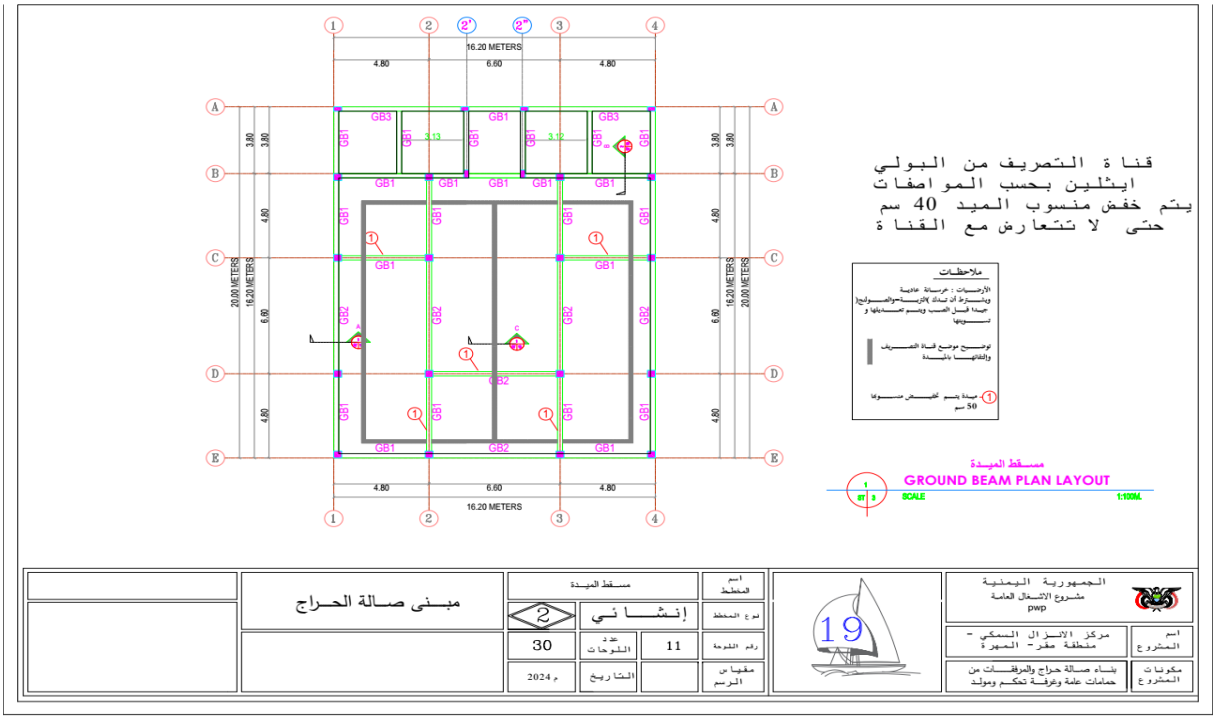
	مبـــنى صـــالة الحـــراج	واجهات صالة الحراج			اسم المخطط	10	الجمهورية اليمنية مشروع الاشغال العامة pwp
		معماري			نوع المخطط		
		30	عدد اللوحات	03	رقم اللوحة		اسم المشروع: مركز الانزال السمكي - منطقة مقر - المهرة
		2024 م	الشاريخ		مقياس الرسم		مكونات المشروع: بناء صالة حراج والمرفقات من حمامات عامة وغرفة تحكم ومولد



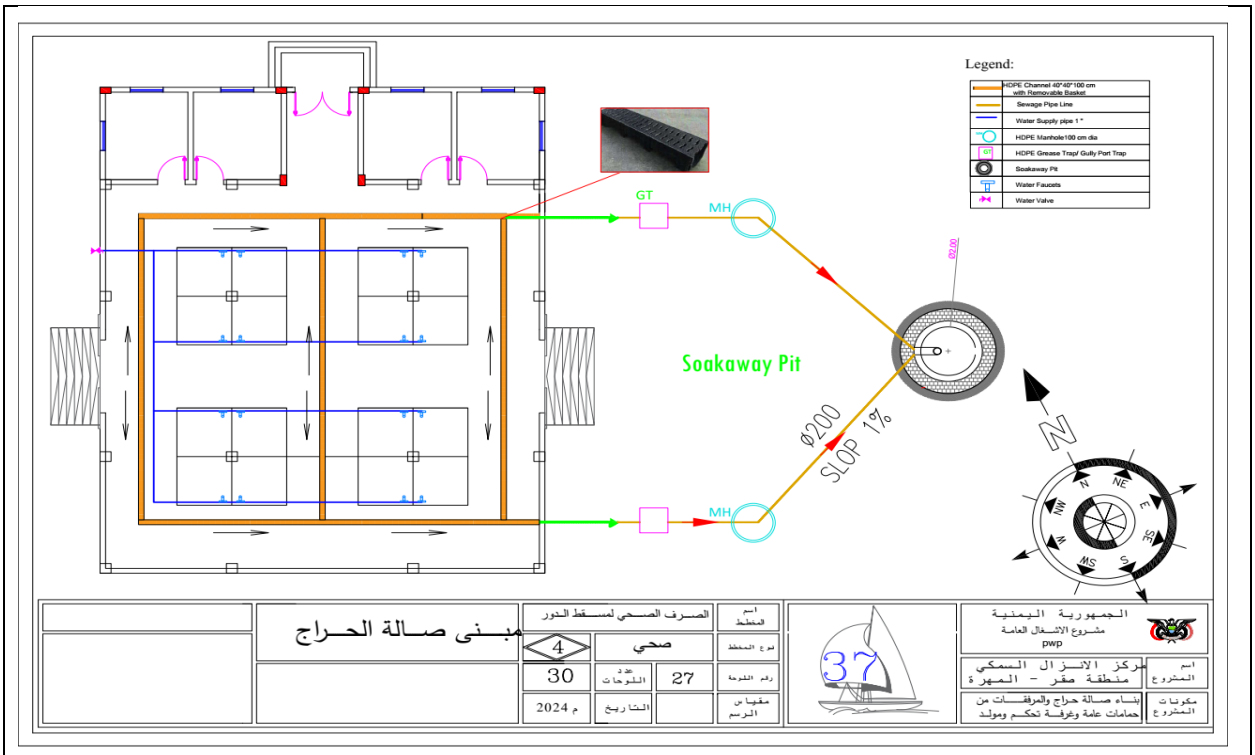


Architecture drawings of Auction hall

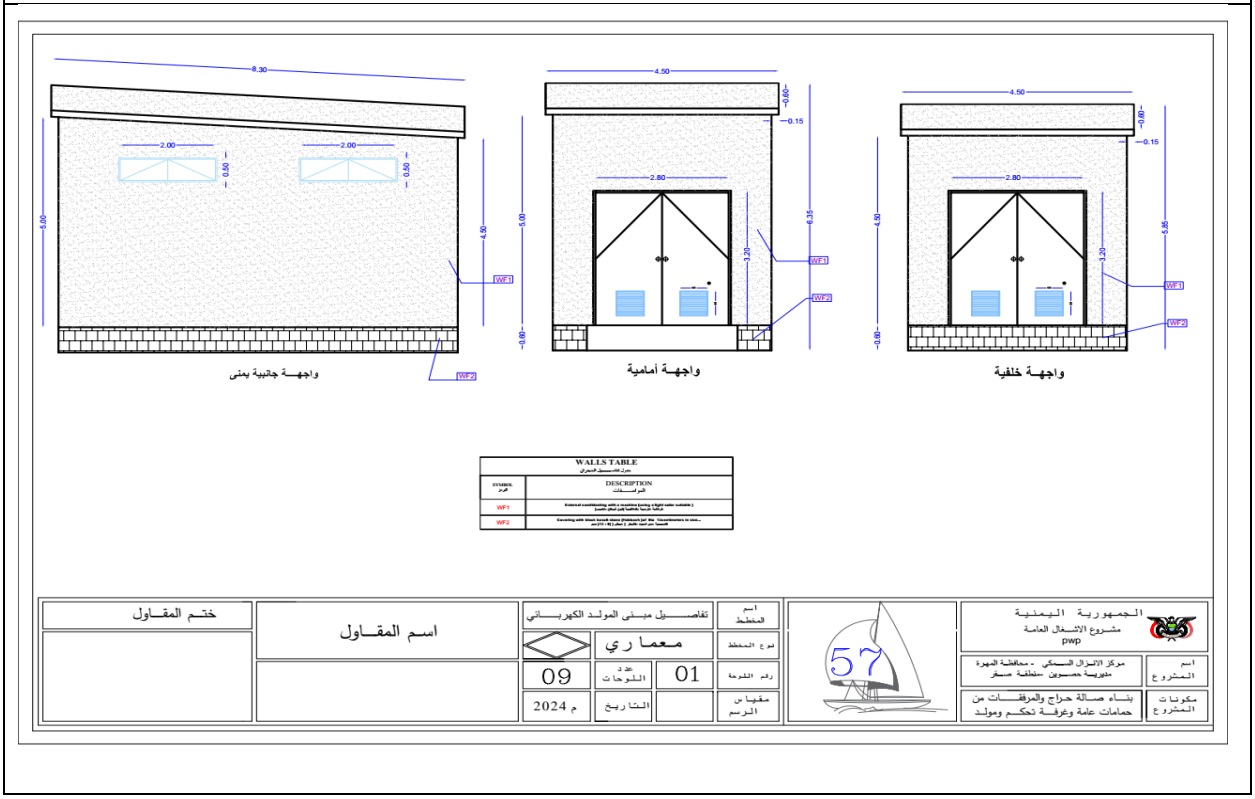


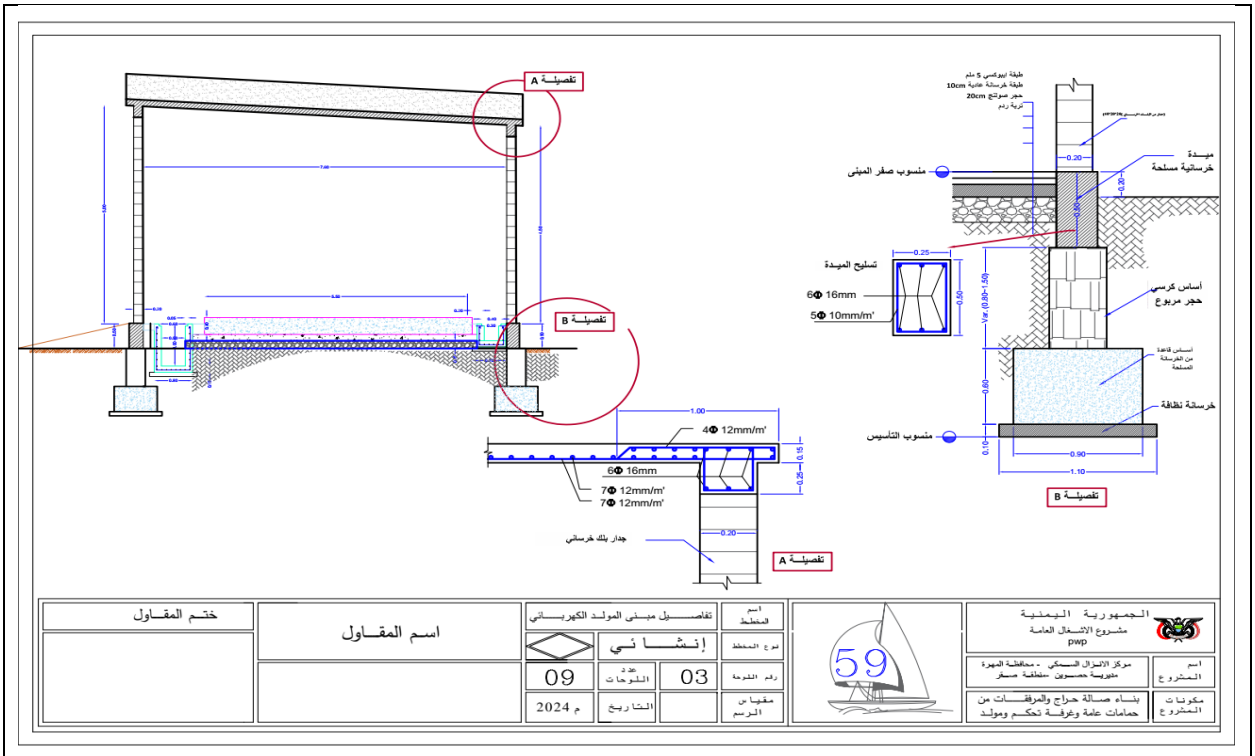


Structural drawings of Auction hall

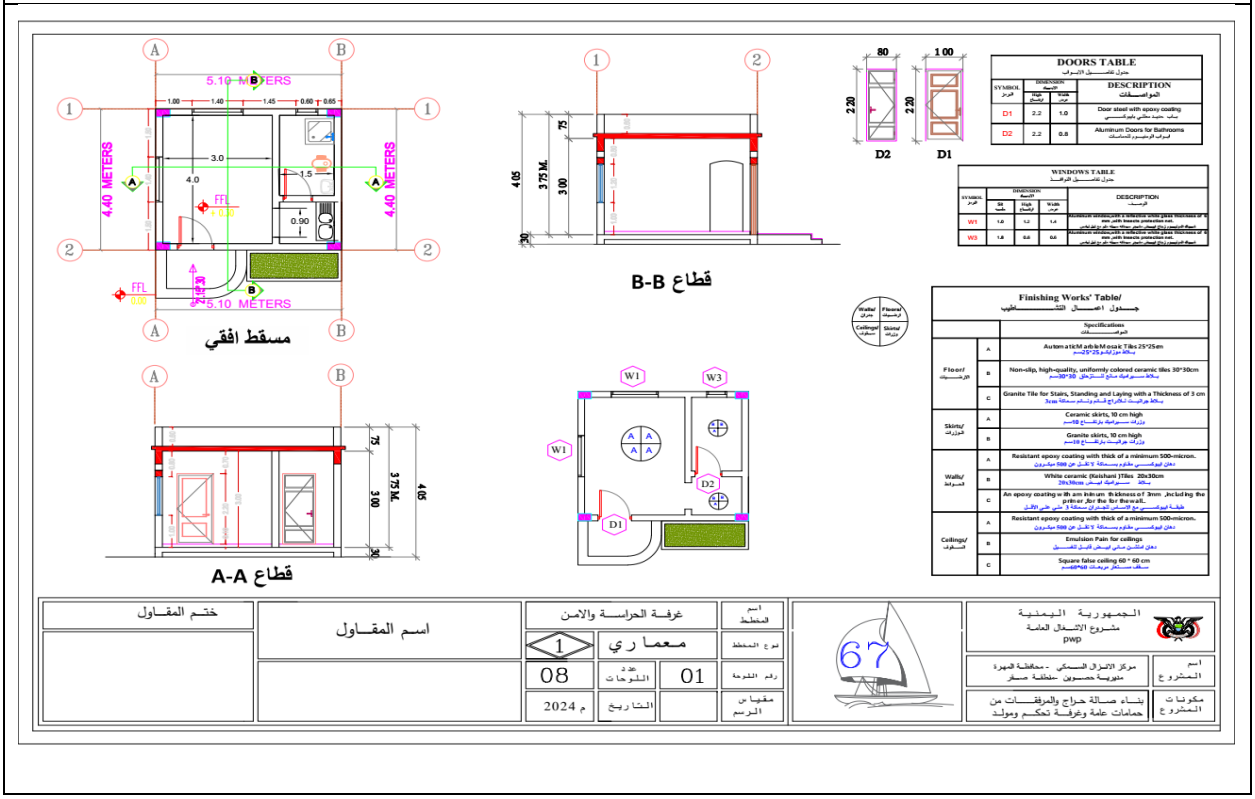


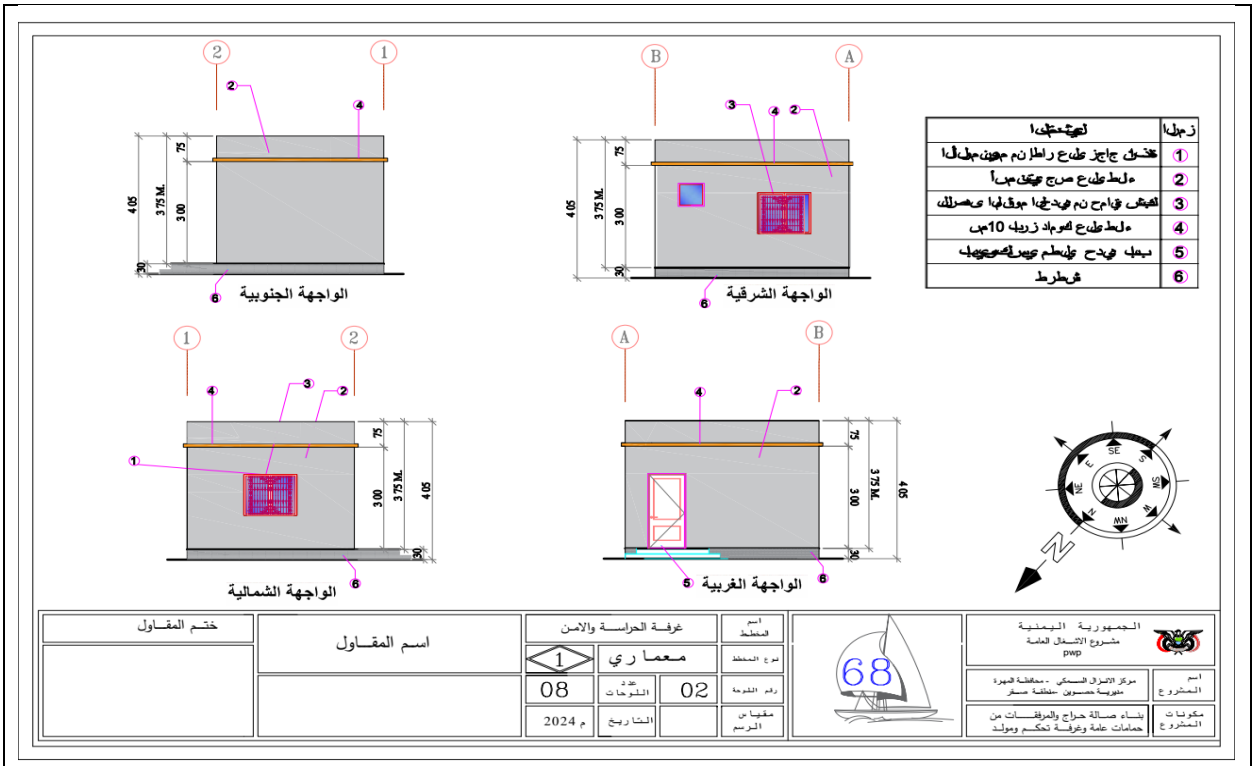
Sanitary drawing of Auction hall



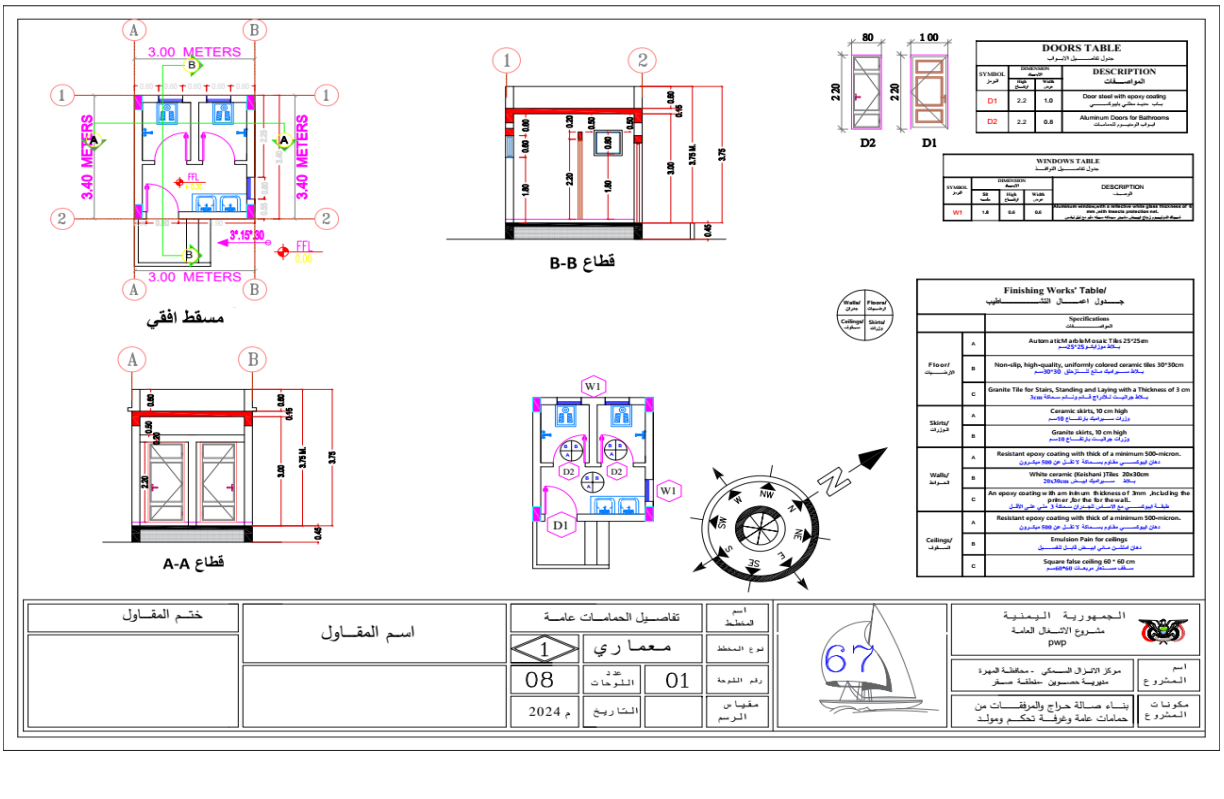


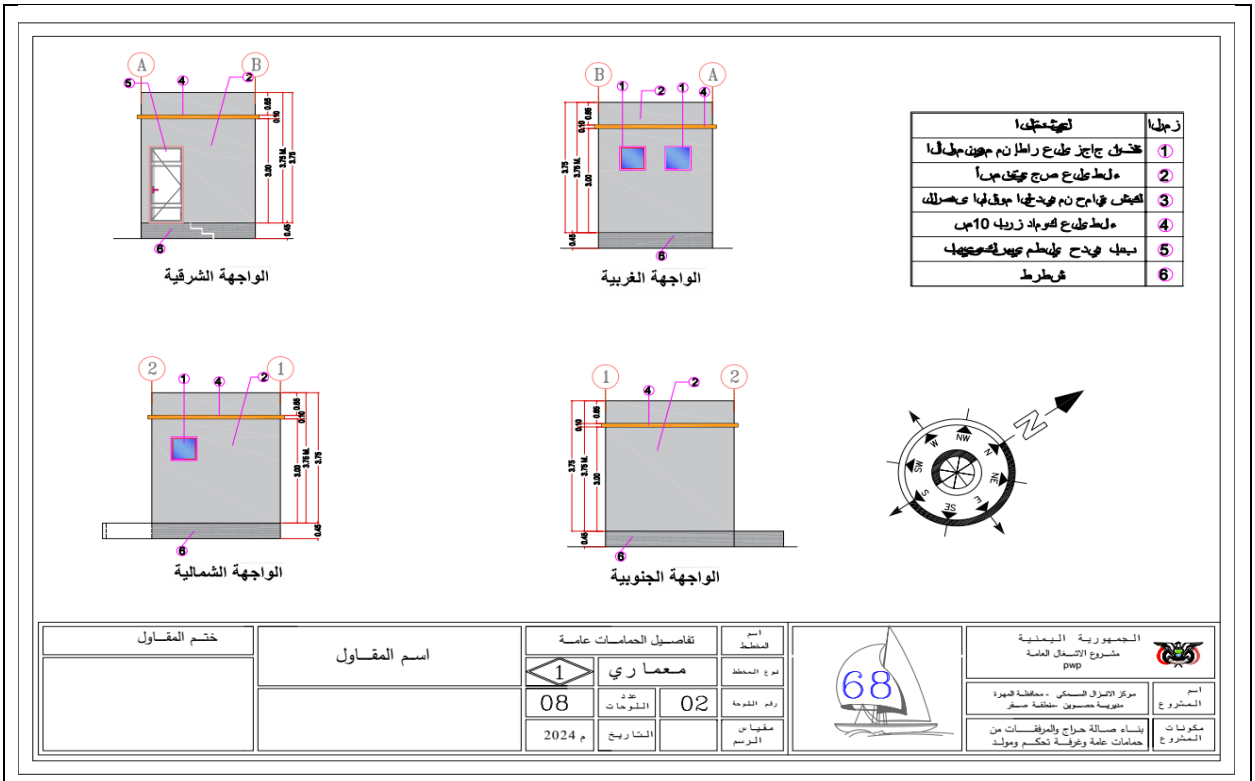
drawings of Generator room



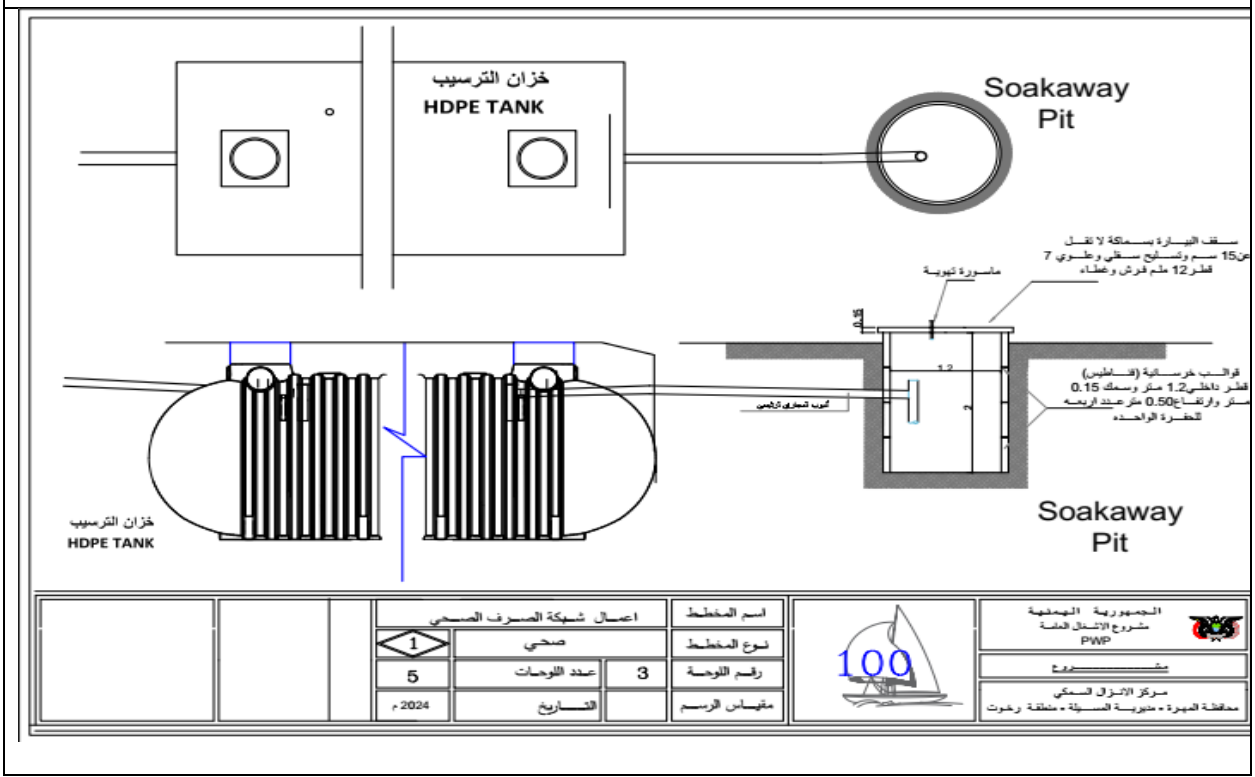


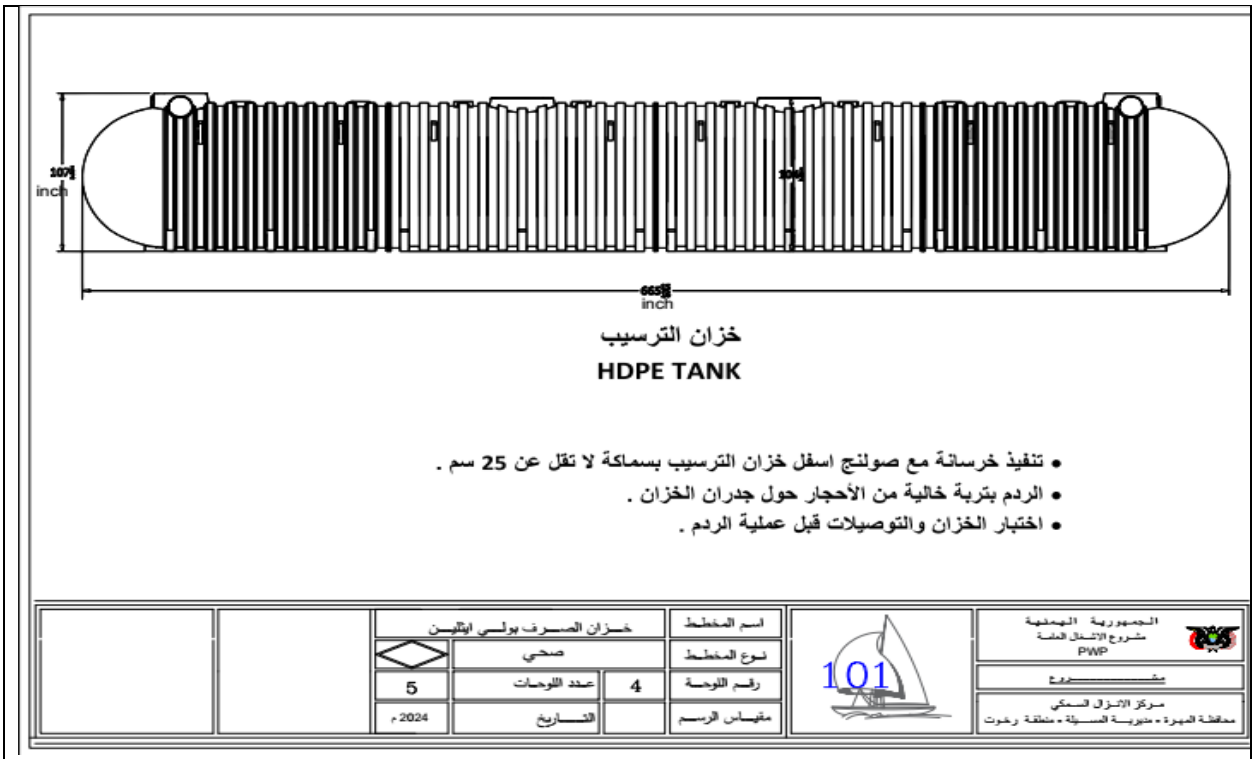
drawings of Guard room



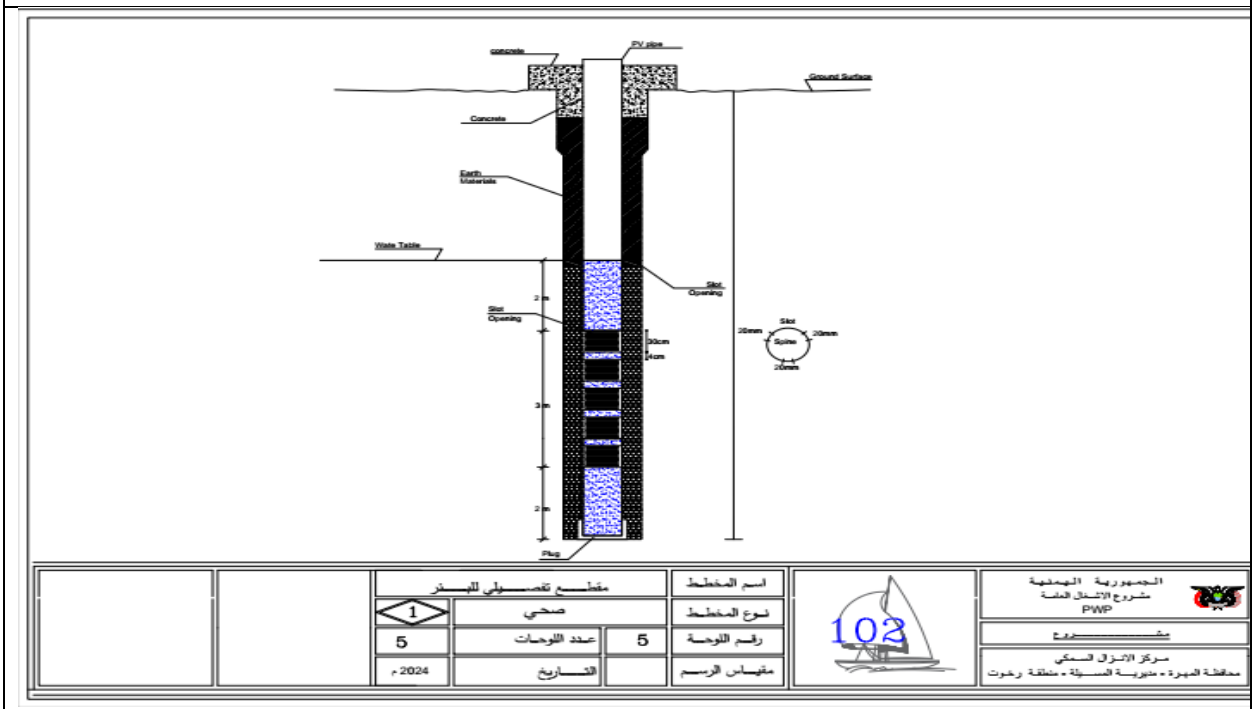


drawings of public bathroom

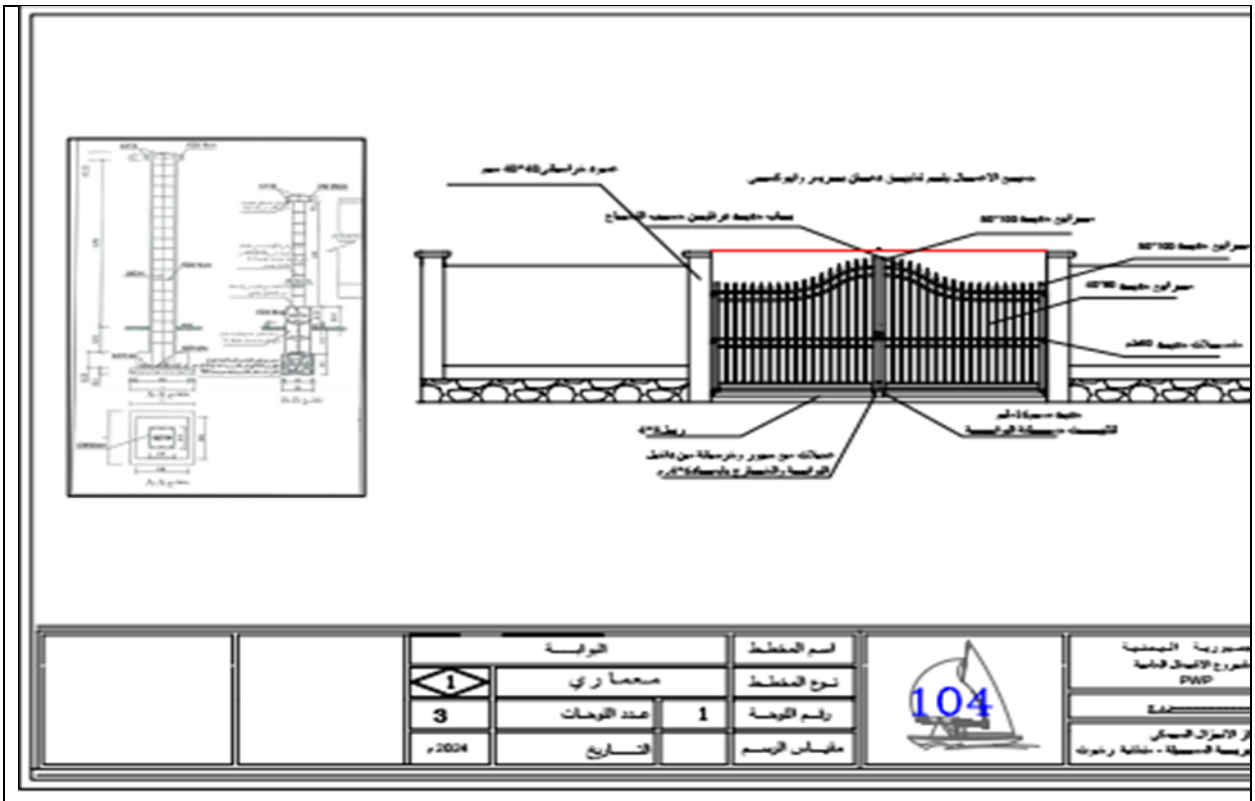




HDPE Tank an Soakway Pit



The Well



The Gate

Annex 2 – Environmental and Social Screening Checklist

Table 12 Environmental and Social Checklist

Sub-Project No.	18-9-16075
1: The Natural Environment	
1.1 Are there any environmentally sensitive areas or threatened species that could be adversely affected by the subproject (specify below)? Intact natural forests Riverine forest Wetlands (lakes/rivers/seasonally inundated areas) If yes, how far are the nearest wetlands (lakes, rivers, seasonally inundated [flooded] areas)? _____km Habitats of endangered species for which protection is required under Yemeni laws and/or international agreements Others (describe) (e.g. cultural sites, burial places, etc.)	Minor NA NA NA NA
2. Fauna and Flora	
2.1 Will the subproject involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)?	Minor
2.2 Will the subproject lead to the destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development?	NA
2.3 Will the subproject lead to the disruption/destruction of wildlife through interruption of migratory routes, disturbance of wildlife habitats, and noise-related problems?	NA
3. Destruction/Disruption of Land and Vegetation	
3.1 Will the subproject lead to unplanned use of the infrastructure being developed?	NA
3.2 Will the subproject lead to long-term or semi-permanent destruction of soils in cleared areas not suited for agriculture?	NA
3.3 Will the subproject lead to the interruption of subsoil and overland drainage patterns (in areas of cuts and fills)?	Minor

3.4 Will the subproject lead to landslides, slumps, slips, and other mass movements in soil?	NA
3.5 Will the subproject lead to erosion of lands?	NA
3.6 Will the subproject lead to health hazards and interference with plant growth by the dust raised and blown by vehicles?	NA
4. Protected areas	
4.1 Does subproject occur within/adjacent to any protected areas designated by the government (national park, national reserve, world heritage site, etc.)	NA
4.2 If the subproject is outside of, but close to, any protected area, is it likely to adversely affect the ecology within the protected area (e.g. interference with migration routes of mammals or birds)	NA
4.3 Would this project increase the current impact on the surrounding environment for example by using more water, chemicals, or machinery than previously? If yes HOW	Minor
5. Geology and Soils	
5.1 Based on visual inspection or available literature, are there areas of possible geologic or soil instability (erosion-prone, landslide-prone, subsidence-prone)?	NA
5.2 Based upon visual inspection or available literature, are there areas that have risks of a large-scale increase in soil salinity?	NA
6 Landscape/aesthetics	
6.1 Is there a possibility that the subproject will adversely affect the aesthetic attractiveness of the local landscape?	Minor
7. Historical, archaeological or cultural heritage site	
7.1. Based on available sources, consultation with local authorities, local knowledge, and/or observations, could the subproject alter any historical, archaeological, or cultural heritage site or require excavation nearby?	NA
8. Resettlement and/or Land Acquisition	
8.1 Will the subproject require land acquisition?	NA
8.2 If so, will this land acquisition be involuntary?	NA
8.3 If so, will this involuntary land acquisition lead to relocation or loss of shelter, loss of assets, or access to assets?	NA

8.4 If so, will this involuntary land acquisition lead to loss of income sources or means of livelihood (whether or not affected persons must move to another location)?	NA
8.5 Will the subproject lead to involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of displaced persons?	NA
9. Noise pollution during Construction and Operations	
9.1 Will operating noise level exceed allowable/ambient noise limits?	Moderate
10. Solid or Liquid Wastes, including Medical Waste	
10.1 Will the subproject generate large amounts of residual wastes (solid or liquid wastes), including medical waste?	Moderate
10.2 If “Yes”, does the subproject include plan for collection & disposal?	Yes
11. Pesticides, Insecticides, Herbicides, or any other Poisonous or Hazardous Chemicals	
11.1 Will the subproject require the use of such chemicals?	NA
11.2 If, “Yes”, does the subproject include plan for safe handling, use & disposal?	NA
12. Water and Soil Contamination	
12.1 Will the subproject require large amounts of raw materials/construction materials?	minor
12.2 Will the subproject generate large amounts of residual wastes, construction material waste, or cause soil erosion?	Minor
12.3 Will the subproject result in soil or water contamination (e.g. from oil, grease, and fuel from equipment)?	Moderate
12.4 Will the subproject lead to contamination of ground and surface water bodies by herbicides for vegetation control and chemicals for dust control?	NA
12.5 Will the subproject lead to an increase in suspended sediments in streams affected by a road cut erosion, a decline in water quality & increased sedimentation downstream?	NA
12.6 Will the subproject lead to the destruction of vegetation and soil in the right-of-way; borrow pits, waste dumps, and equipment yards?	NA
12.7 Will the subproject lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging mosquito breeding and other disease vectors?	NA
12.8 Will this project include the development of a large irrigation scheme?	NA

12.9 Will this project aim at improving an irrigation scheme (without expansion)?	NA
12.10 Will this project change the water quality and quantity in the project area or areas connected to it	Minor
12.11 Will this project involve the intensification of production systems that leads to land-use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, and changes in water regimes (drainage, irrigation)?	NA
13. Decent Work	
13.1 Will this project affect the current or future employment situation of the rural poor and in particular the labor productivity, employability, labor conditions, and rights at work of self-employed rural producers and other rural workers?	moderate
14. Gender	
14.1 Could this project risk overlook existing gender inequalities in access to productive resources, goods, services, markets, decent employment, and decision-making? For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women	Minor
15. Community Health, Safety, and Working Conditions	
15.1 Are indigenous peoples present in the Project area (including the Project area of influence)?	NA
15.2 Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	NA
15.3 Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	NA
15.4 Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	NA
15.5 Will this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?	NA
15.6 Will the project bring about consolidation or adjustment of tenure rights?	NA
15.7 Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	Minor

15.8 Would the Project pose potential risks to community health and safety due to transport, storage, and construction?	Moderate
15.9 Would the Project pose potential risks to community health and safety due to the use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel, and other chemicals during construction and operation)?	Monir
15.10 Would the failure of structural elements of the Project pose risks to communities? (e.g., collapse of buildings or infrastructure)?	Minor
15.11 Would the Project result in potential increased health risks (e.g., from water-borne or other vector-borne diseases)?	NA
15.12 Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	Moderate
15.13 Will the Project activities cause any risks for workers during the construction?	Moderate

Annex 3 – PWP Environmental and Social Responsiveness (ESR) Criteria Exclusion List at Proposal Stage

Note: To be selected and filled according to project type based on PWP baseline study

Table 13 PWP Environmental and Social Responsiveness (ESR) Criteria at Proposal Stage

Proposal Title	Fish landing
Proposal Location	Al-Maharah
ESR Criteria at the Proposal Stage	Confirmation Write Yes or No
Consultation with the local community including a community leader, men, women, and girls was conducted in the proposal stage regarding the design and location of the project. Their opinions were included in the proposal.	Yes
Poor and vulnerable beneficiaries were defined, and the community was obliged to provide help for them in the subproject implementation.	Yes
The project will not have a significant adverse environmental and social impact	Yes
The project will not raise land acquisition problems	Yes
Stakeholders are aware of the PWP policy and have agreed to follow/apply them towards a successful implementation of the fish landing project	Yes
Targeted beneficiaries are highly in need of this project	Yes
All communities including (Male, females, and children) will benefit from the intervention.	Yes
The operation and maintenance requirements of the project were explained to the community, and an acceptable system was developed for this purpose	Yes
Responsibility for operation and maintenance are defined and committed	Yes
Local communities are aware of project risks and GM.	Yes
The project will not cause any conflict among communities	Yes
If the answer to any of the above questions is 'NO' then the project will be dropped at the proposal stage. If the answer is 'Yes' then incorporating this information in the project proposal	

Annex 4 - PWP Checklist of Expected Environmental and Social Impacts to be Addressed at the Design Stage

Table 14 PWP Checklist of Expected Environmental and Social Impacts to be addressed at the Design Stage

Project Name	Fish landing	
Project Location	Al-Maharah	
Check List of the E&S Issues to be Addressed for the construction subproject at the Design Stage		Confirmation Write Yes or NO
The relevant authorities were consulted on the design and all their observations were taken into consideration.		Yes
The design of the project will include the ES & OHS monitoring plan		Yes
The project design will ensure local community participation during implementation.		Yes
The design and the fish landing contractual materials for example stone are in harmony with the surrounding environment and the architectural character of the village.		Yes
GM tools have been included in the project document.		Yes
A safe work plan has been developed for project activities to control risks.		Yes
OHS measures and Personal Protection Equipment (PPEs), were added to the bidding documents.		Yes
Temporary latrines and wash hand facilities have been included in the project document.		Yes
If any of the answers is "No", then the reasons must be stated in the design report.		

Annex 5. –Social agreement– Arabic

Table 15 Public Consultation Reports (Social agreements & consultation attendance sheets) – Arabic

بسم الله الرحمن الرحيم

الجمهورية اليمنية
مشروع الأشغال العامة
وحدة إدارة المشروع

المدينة..... العزلة :..... مديرية ..... محافظة .....رقم المشروع .....

اسم المشروع : مشروع تنفيذ ترميم وإعادة تاهيل مراكز النزال سمكي

18-9-1667

انه وفي يوم .....الموافق / / م تم الاتفاق بين كل من مشروع الأشغال العامة ويدعى في هذا الاتفاق بالطرف الأول والإخوة ممثلوا السلطة المحلية مع الأخوة ممثلي أهالي (لجنةالمستفيدين والتي تم تشكيلها وانتخاب الهيئة الادارية لها).....- مديرية ..... ويدعوا في هذا الاتفاق بالطرف الثاني وبعد التأكد من إحتياج المنطقة المذكورة للمشروع المذكور وضرورة التدخل في إعادة تاهيل مركز الانزال السمكي في المنطقة والتي يقر الطرف الثاني بموجب هذا الإلتزام بان هذا المركز لا يتعلق بملكية خاصة أو عامة وأنه ملزم بحل أي إشكال قد يظهر في أي موقع في المدينة بعمل التنازلات أو التعويض أو خلافه، وإن الأطراف تلتزم بما يلي:

(1) يقوم الطرف الأول بتنفيذ أعمال الدراسة والتصميمات والرسومات والتي توضح كل مكونات المشروع والملزمة لكل الأطراف كل بمساهمته التي تم الإتفاق عليها، ويتمثل جزء من مساهمة الطرف الثاني في تسهيل أعمال المهندسين والمقاول المنفذ وتذليل كافة الصعوبات التي قد تظهر خلال أعمال الدراسة من قبل أهالي المنطقة مثل الاعتراضات على أماكن الحفر والردم، ، وصل الطرقات اللازمة لخدمة المشروع والعمل على حل كافة المشاكل الأخرى مع الأهالي (مهما كان نوعها) والتي قد تظهر خلال أعمال الدراسة أو التنفيذ أو حتى عند التسليم أو بعد التسليم لمكونات المشروع المساهمة العينية أوالمساهمة النقدية المطلوبة.

(2) يقوم الطرف الأول بواسطة المقاول المعين من قبله بتنفيذ مكونات المشروع وبموجب الرسومات وجداول الكميات الخاصة بالمشروع،ويلتزم الطرف الثاني في هذا بالموافقة على المواقع التي تم اختيارها لمكونات المشروع خلال أعمال الدراسة والمسح، وبعدم توقيف تنفيذ العمل في هذه المواقع ، سواء كانت أعمال حفر او ردم و خلافه ،وكذلك يلتزم الطرف الثاني بتوفير مقاطع الأحجار في المنطقة والتي يقرها المهندس المشرف ويتعهد الطرف الثاني بعدم إعتراض المقاول عند أخذ الأحجار من تلك المقاطع و القيام بحل المشاكل في هذا الموضوع مع الأهالي مهما كان نوعها.

(3)يوافق الطرف الثاني على التواجد الميداني المستمر قبل وخلال فترة التنفيذ مع فريق التنفيذ وذلك للإحاطة بكل مكونات المشروع على الطبيعة ومعرفة طريقة التنفيذ والتشغيل حتى يسهل عليهم إدارة المشروع وصيانته مستقبلاً، وعند وجود أي ملاحظة على عملية التنفيذ فان على الطرف الثاني رفعها إلى المهندس المشرف والمعين من قبل مشروع الأشغال العامة أو إلى مدير المنطقة الفرعية.

(4)يلتزم الطرف الثاني باستخدام هذا المشروع في المجال الذي صمم من أجله وهو في هذه الحالة لغرض إيجاد بيئة نظيفة وسهله للصيادين بشكل سليم،و عدم إستغلال هذا المشروع لأي غرض خاص أو عام أو أي استخدام آخر خلاف ذلك مهما كان.

(5)إن لمشروع الأشغال العامة الحق في إنهاء هذا الاتفاق وتعهداتها إذا توقف أو سار المشروع ببطء طالما كان الأهالي في المنطقة هم السبب، أو عند مخالفة أحد البنود المذكورة أعلاه.

(6)إن مشروع الأشغال العامة لن يتحمل مسئولية عن أي ضرر جسماني لأي طرف كان نتيجة تشييد هذا المشروع مهما كانت الأسباب.

(7)في حالة إلغاء هذا المشروع لأي سبب كان فإن الطرف الثاني (ممثل الأهالي) يلتزمون بعدم اعتراض المقاول في سحب أدواته ومعداته من الموقع. (8)تعتبر هذه الاتفاقية ملزمة للطرفين بعد التوقيع عليها وتعميدها.

الطرف الأول
مشروع
- مدير المشروع
- مدير مشروع الأشغال
م/ سعيد عبده أحمد

الطرف الثاني:
(1)الهيئة الإدارية لمشروع (ممثلوا الأهالي المستفيدون) .....
الأشغال العامة

	الاسم	التوقيع	الفرعية
1-	محروق حميد مرسي كلشات		
2-	وديع عبدالله محمد كلشات		
3-	عمر عامر رمضي		
4-	عبدالله ابراهيم كلشات		
5-			

(2)المجلس المحلي للمنطقة
العامة
(3) مدير عام المديرية

محافظ المحافظة
رئيس المجلس المحلي

M.A.H
1/1

Social agreements

الجمهورية اليمنية
الهيئة العامة للأراضي والمساحة
والتخطيط العمراني
محافظة المهرة - م / حصوين

الرقم : .....
التاريخ : .....
الموافق : ٢٠٢٣/٨/٢٠م

محضـــــر تسليم موقع (مبنى حكومي).

في هذا اليوم الأحد الموافق ٢٠/٨/٢٠٢٣م بمدينة حصوين تم الإتفاق بين كل من :-
- الطرف الأول: مكتب فرع الهيئة العامة للأراضي والمساحة والتخطيط العمراني م/ حصوين.
- الطرف الثاني : مكتب فرع الهيئة العامة المصائد السمكية م/ حصوين.
وذلك على الآتي :

١- أن يسلم الطرف الأول للطرف الثاني موقع في منطقة صقر بمديرية حصوين وذلك لغرض مركز الإنزال السمكي وملحقاته بمنطقة صقر مديرية حصوين مساحتها (٥٠٠م × ٢٠٠م) بمساحة إجمالية ١٠٠٠٠٠ متر مربع.
وحدوده كالتالي:
من الشرق: مساحة أرض الدولة.
من الغرب: مساحة أرض الدولة.
من الجنوب: البحر.
من الشمال: مساحة أرض الدولة.
٢- لا يحق للطرف الثاني استخدام الموقع المسلم له الا للغرض الذي سلم له من أجله.
٣- على الطرف الثاني مراعاة جميع نصوص القوانين المتعلقة باستعمال وتحويل أراضي الدولة وأن يراعي نصوص القوانين والأنظمة المعمول بها والخاصة بإقامة أي مبنى ، وتعتبر نصوص القوانين المذكورة مشمولة في هذا المحضر ومكملة لشروطه.
٤- اذا أخل الطرف الثاني بأحكام وشروط هذا المحضر فإن للطرف الأول الحق في أن يسترد الموقع المسلم بطرق القانونية النافذة.
٥- يبدأ سريان هذا المحضر من تاريخ توقيعه وبيد كل طرف نسخة للعمل بموجبها.

والله الموفق ،،،

الطرف الثاني :	الطرف الأول :
الهيئة العامة للمصائد السمكية م/ حصوين	مدير فرع الهيئة العامة للأراضي م/ حصوين

تعميد السلطة المحلية بالمديرية

Land ownership

Annex 6 – PWP Complain Handling Mechanism

تمهيد:

الرقابة المجتمعية على تنفيذ المشاريع الممولة من قبل مشروع الاشغال العامة شرط أساسي ومهم في آلية الرقابة والتقييم على المشاريع المنفذة. و هو ما دعا إلى مشروع الاشغال العامة لإنشاء سرعة كبيرة في إيصال الخدمات للمواطنين وفي نفس الوقت خلق علاقة مميزة بين الشركاء المجتمعية ساهمت في جعل المجتمع يقوم بدوره الرقابي على المشاريع بكافة المحافظات العامة.

تجربة تنموية:

- الرقابة المجتمعية الفاعلة المؤثرة بسعوله وحريه تقديم الشكوى والوصول إلى أعلى هرم قادر في مشروع الاشغال العامة .
- قادر على الإفصال والتسيب ومنع المحاباة وعدم من الفساد.
- التكامل والتعاون والتكاتف بين المجتمعات المستفيده ومشروع الاشغال العامه بنجاح الأنشطة اللامية وصمده أمام حمايتها من الفساد وضمان استدامتها وديمومتها وتحقيق أهدافها
- بروح متفائلة وطاقة المشورة بالرضا والتعاسك المجتمعي الجامع حول المصلحه العامه بدلاً من المشكلات والشاكي
- حيثما يتواجد مشروع الاشغال العامة فهذا يعني رقابة مجتمعية فاعلة . تمثل اليد الطولى والوجه الآخر لمشروع الاشغال العامة

من الميدان:

نجح مشروع الأشغال العامة في سبي رأي الناس عند تحديد المشاريع المقترحة، والاستماع إلى أصواتهم والتفاعل مع شكاواهم وتلمس أوجاعهم والتفاعل مع مقترحاتهم التي تصدر عن لقاءاتهم ومحافلهم

شارك في حل المشكلة(الشكوى):

- تأكد من صحة الشكوى أو المشكلة الناتجة عن المشاريع والأعمال التنموية المنفذة في منطقتك وناقشها مع الآخرين
- كن صادقاً ومحايداً في التعامل مع أي شكوى أو مشكلة قد تحدث أثناء تنفيذ المشروع وتجنب الأحكام والمواقف المسبقة
- أحرص على تحقيق المصلحة العامة عند تقديم الشكوى دون سواها وتحرر من الأهواء الشخصية
- شجع مجتمعك وكل من حولك في نطاق المشروع على روح المبادرة في وضع الحلول والمعالجات للمشكلة في بدايتها والتي من الممكن حلها بإمكانيات وقدرات المجتمع.
- لا تتردد عن استخدام حقوقك في رفع الشكاوى وتقديم المقترحات حول الاختلالات في جودة أو مواصفات المشاريع المنفذة .وجدواها الاقتصادية وملائمتها الخدمية لمجتمعك.

أخي المواطن الكريم:

كمراقب وواجبك يحتمان عليك القيام بدورك في الرقابة المجتمعية على جودة المشاريع المنفذة والخدمات المقدمة فمشاركتك الرقابية هي الضمانة الأكيدة ضد الممارسات الخاطئة وغير المشروعة والوصفة الناجحة للقضاء على التسيب والإهمال.

لتكون فاعلاً :

"عليك التحرر من الأهواء الشخصية .وكن حريصاً على تحقيق المصلحة العامة ومتعاوناً ومساهماً في نجاح الأنشطة والمشاريع التنموية المنفذة في منطقتك .ومراقباً أميناً على جودة الخدمات والأنشطة المقدمة لمجتمعك . بحيث تكون معبرة وملبية لاحتياجات الناس و محققة أقصى درجات المنفعة والاستفادة والفوائد المرجوة منها.

Figure 6 PWP Complain Handling Mechanism